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land use plan

1980-1990

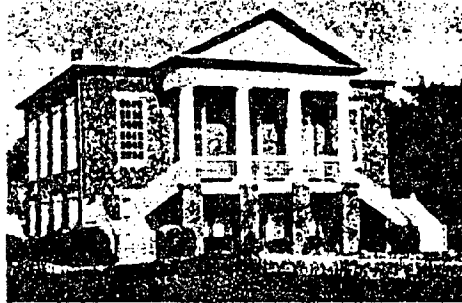
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October 5, 1981

CAMDEN COUNTY, NORTH CAROLINA

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OFFICE OF THE BOARD OF COMMISSIONERS



Camden, N. C. 27921

October 5, 1981

Mr. J. Parker Chesson, Jr.
Chairman
Coastal Resources Commission
P.O. Box 27687
Raleigh, NC 27611

Dear Mr. Chesson:

Pursuant to the public hearing held on October 5, 1981 as advertised in the Daily Advance newspaper on September 1, 1981, this plan was adopted by the Commissioners of the County of Camden. We hereby submit it to the Coastal Resources Commission for your certification review.

Sincerely,

T. F. Leary
Chairman

RT/jr

THE LAND USE PLAN OF CAMDEN COUNTY: 1980-1990

Camden County, North Carolina

BOARD OF COMMISSIONERS, CAMDEN COUNTY

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Jack Leary, Clerk

PREPARED BY: THE CAMDEN DEVELOPMENT ADVISORY COMMITTEE

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The preparation of this plan was financed in part through a grant provided by the North Carolina Coastal Management Program, through funds provided by the Coastal Zone Management Act of 1972, as amended, which is administered by the Office of Coastal Zone Management, National Oceanic and Atmospheric Administration. Camden County contributed cash and in-kind services.

ACKNOWLEDGEMENTS

The Camden County Board of Commissioners wishes to express their appreciation to all those who contributed their time and thoughtful ideas on this Land Use Plan.

We wish to thank all those citizens of Camden County who responded to the questionnaire about land use issues; the members of the Land Use Planning course at the Department of City and Regional Planning at Chapel Hill, namely: John Becker, Pat Davis, Lewis Lobdell, Joanna Mack, Kim Marlow, Bill McElyea, Forrest Sadler, Julie Shambaugh, Mike Slavney, Maria Stanco, Joyce Tuharsky; and the members of the Camden County Development Advisory Committee listed on the previous page.

Because of their contributions, this Land Use Plan update contains better information and is more representative than we could have otherwise achieved.

LAND USE PLAN UPDATE OF CAMDEN COUNTY

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I. INTRODUCTION:

A. Why Plan for Camden County's Future?

Located in the northeast corner of North Carolina, Camden County has remained a slow-growing rural county over the years. Today, it features three principal unincorporated communities, several smaller ones, and some newer subdivisions that provide diversity to the quiet and agrarian nature of the County.

As recognized in its 1976 Land Use Plan under the Coastal Area Management Act (CAMA), Camden County's population, its sensitive environmental areas, and agricultural economy provide important reasons for planning deliberately for the future. The 1981 update extends that data base by including recent County policies and programs and new information developed under the direction of the Camden Development Advisory Committee. The new information includes a citizen survey and field observations of land use, housing condition, and Areas of Environmental Concern (AEC's).

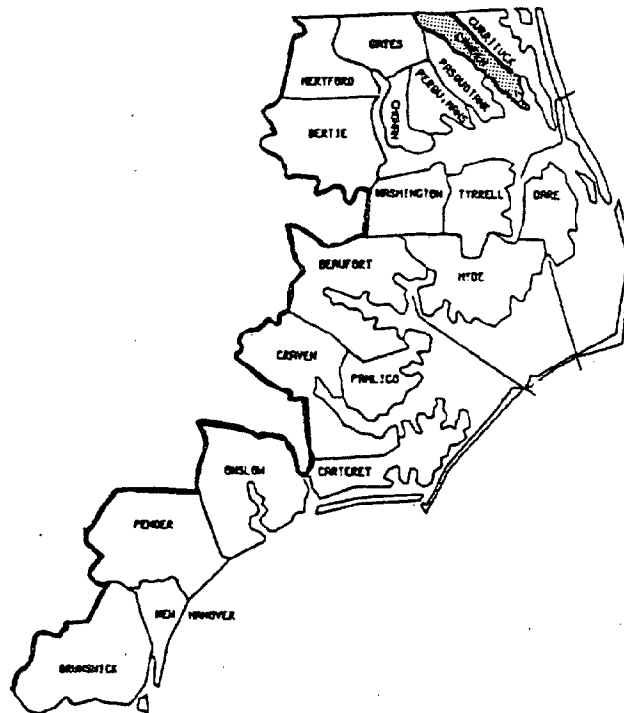
First, Camden County is the home of 5,829 persons, 67.5% of whom are white and 32.5% non-white. Since 1970, Camden grew only 6.9% (376 persons), compared to the state's rate of 15.5%. Projections show that the County can expect a similar growth rate between 1980 and 1985 (6.3%), with a 9.8% rate between 1980 and 1990. The fact that the County will grow 14% faster than the state during that period distorts the fact that only 571 additional persons will reside in Camden County in 1990 than today.

Second, Camden County has a large amount of its official territory covered by public waters and shorelines that are designated as Areas of Environmental Concern under the Coastal Area Management Act. Additionally, vast areas of wooded swamp, while not officially AEC's, serve valuable nutrient collection and wild-life habitat functions. Additionally, the Dismal Swamp State Park covers thousands of acres, where the natural environment is particularly protected. Demand for recreational and second homes continues to place considerable pressure for development in environmentally sensitive areas. In addition to resources that need protection, Camden County has vast acres of good farmland and forested areas suitable for commercial production. A large peat concentration along the northeastern boundary has potential for careful resource management.

Third, economic and community development issues persist in the County. Water quality is one such issue. Softeners and other purifiers are applied to individual wells, except in the one-third of the County served by the non-profit South Mills Water Association. Therefore, expressly choosing a slow growth policy, the County is justifiably interested in being selective among federal and state programs which stimulate development. It is equally cautious about courting industries that extract minerals and drain swamps to deplete the water table in the northern part of the County and about undertaking any other actions that could stimulate development. These times of high inflation, increasing costs in gasoline, and rising unemployment may reverse commuter trends, however, and cause pressures for concentrated commercial and residential development patterns in the County.

CAMDEN COUNTY
North Carolina

Location Map



COUNTIES COVERED BY CMA

Thus, the County's population, rural nature, environmentally sensitive areas, and community and economic development intentions provide ample incentive for the County to prepare to face the uncertainty of the 1980's. It is to this end that the County has prepared this update of its Land Use Plan.

B. What is the Camden County Land Use Plan?

This document, then, is the pivotal statement of policy for use by local, state, and federal officials in decisions regarding Camden County's development over the next 10 years. Additionally, it is an important piece in the development efforts of the County and an important element in the state's plan for the rational and coordinated management of coastal resources.

The Coastal Area Management Act establishes a base for protection of areas of statewide concern within the coastal area. In Camden County estuarine waters and shorelines and public trust waters have been designated for such protection and are addressed specifically in Section II below. The Act also, through its guidelines for land use planning (15 NCAC 7B), sets forth important principles of land use planning which have been emphasized in this document:

1. This plan has environmental protection as a priority in its own right, while, at the same time, it advocates appropriate economic and community development.
2. This plan is based upon real citizen participation in the planning process through the County Board of Commissioners, citizen survey, and public meetings.
3. This plan has a strong action orientation. Policies are stated as desired situations toward which the County Board is willing to work.
4. This plan is a sound basis for continuation of earlier work in Camden to improve the community for those who live and visit there.
5. This plan is designed for continuous improvement as new information becomes available. It is to be updated at least once every five years and more frequently if required by the County Commissioners.

Based upon these principles, then, Section II goes directly to the heart of the Plan--policy discussion. Here, a brief description of issues, alternative policies, chosen policies, and implementation statements are presented.

Section III features the Land Classification Map which translates these policies into future desired land use patterns and discusses the relationships between the Land Classification Map and the policy statements in Section II.

Section IV presents in more detail the information base upon which the policies and Land Classification Map have been developed. The elements of this section are outlined in the Table of Contents.

Finally, Section V is an Appendix which presents miscellaneous exhibits regarding submission and adoption of the Plan, including the synopsis.

Before getting into the policy discussion, it is important to review the uses of this document. After all is said and planned, it is only the use of this document which will make it a reality in Camden County.

C. What Are the Uses of the Land Use Plan?

Land use plans which are prepared by local governments in the coastal area are distributed widely and have many uses. Those reviewing and using the plans are local governments, regional councils of government, state and federal permitting agencies and public and private funding and development groups.

The discussion of policies, the land classification map, and the relationship of the two serve as the basic tools for coordinating policies, standards, regulations and other government activities at the local, state and federal levels. The coordination is described by three applications:

- a. The policy discussion and the Land Classification Map encourage coordination and consistency between local land use policies and the state and federal governments. The local land use plans are the principal policy guides for governmental decisions and activities which affect land uses in the coastal area.
- b. The local land use plans provide a framework for budgeting, planning and for the provision and expansion of community facilities such as water and sewer systems, schools and roads.
- c. The local land use plans will aid in better coordination of regulatory policies and decisions by describing the local land use policies and designating specific areas for certain types of activities.

Local Governmental Uses: Counties and municipalities should use the local land use plans in their day to day decision making and in planning for the future. The land use plans should provide guidance in local policy decisions relating to overall community development. The plans also provide the basis for development regulations and capital facility planning and budgeting. By identifying how the community prefers to grow, land use plans help to assure the best use of tax dollars as public utilities can be extended to areas designated for development necessitating public services.

Regional Uses: The regional councils of government or planning and development commissions use the local land use plans as the basis for their regional plans and in their function as regional clearinghouses (A-95) for state and federal funding programs. The local plans indicate to these regional agencies what types of development the local community feels are important and where the development should take place.

State and Federal Government Uses: Local land use plans are used as the major criteria in granting or denial of permits for various developments within the coastal area. State and federal agencies must be sure that their decisions consider the policies and land classification systems which are described by the local governments in their plans. The Coastal Area Management Act stipulates that no development permit may be issued if the development is inconsistent with the local land use plans. Similarly, decisions relating to the use of federal or state funds within coastal counties and towns and projects being undertaken by state and federal agencies themselves must also be consistent with the local plans. State agencies also use the plans in their A-95 review. Thus, it is vitally important that local governments take the opportunity to be as definitive as possible in developing their policy statements and land classification system to minimize interpretive decisions on the part of state and federal review, permit and funding agencies.

II. POLICY DISCUSSION AND STATEMENTS.

A. Overview.

"Policy" is most simply defined as an expressed set of adopted statements which are to be used to guide future decisions. Taken together, and adjusting them for interrelationships, policies constitute a broad development direction for the future and may be embodied in the heart of the plan.

The following policies, then, represent desired states or "goals" toward which the Camden County Board of Commissioners and the citizens of the County are willing to work. These particular policies were chosen after careful analysis of published data, responses to the citizen survey, analysis of current plans, policies, and programs, and work sessions of the Development Advisory Committee Commissioners, and preferred policies were selected.

Their work is presented below in the five major categories of policy discussion outlined by the Office of Coastal Management: resource protection, resource production, economic and community development, citizen participation, and special issues.

For each issue, this section presents:

- a definition of the scope and summary of the importance of the issue in the locality (more detailed information may be found in Section IV).
- the alternative policies that have been considered for the issue.
- a description of how the local policy will be implemented.

With this understanding, we turn to the first category of issues, Resource Protection.

B. Resource Protection.

In accordance with the CAMA guidelines for land use planning, the following issues are identified for policy discussion within the resource protection category for Camden County:

Areas of Environmental Concern

Constraints to Development

Specific Local Resource Development Issues

Other Hazardous or Fragile Land Areas

Hurricane and Flood Evacuation Needs and Plans

1. Areas of Environmental Concern.

The designation and regulation of critical resource areas is one of the major purposes of the Coastal Area Management Act. The 1974 Legislature found that "the coastal area, and in particular the estuaries, are among the most biologically productive regions of this state and of the nation," and in recent years the area "has been subjected to increasing pressures which are the result of the often conflicting needs of the society expanding in industrial development, in population, and in the recreational aspirations of its citizens". The Act further states that, "unless these pressures are controlled by coordinated management, the very features of the coast which make it economically, aesthetically, and ecologically rich will be destroyed."

Through a subsequent nomination process, Interim Areas of Environmental Concern (IAEC's) were reviewed by the Coastal Resources Commission and 13 categories of AEC's were proposed for final designation. These are explained in detail in 15 NCAC 7H.

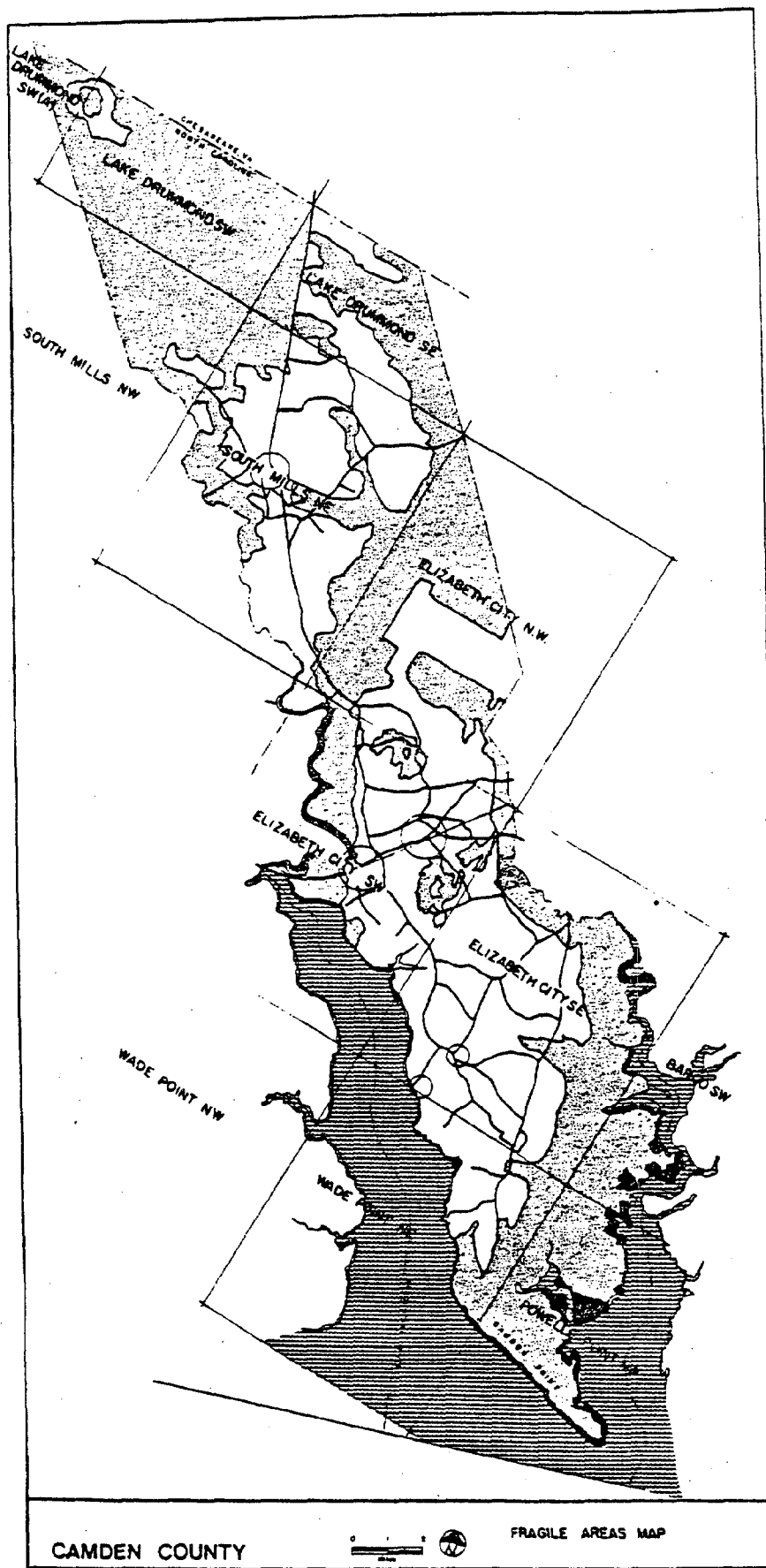
The following map shows the four categories of AEC's in Camden County:

Coastal Wetlands

Estuarine Waters

Estuarine Shorelines

Public Trust Waters



CAMDEN COUNTY

FRAGILE AREAS MAP

- LEGEND
- WOODED SWAMP
 - PUBLIC TRUST WATERS
 - ESTUARINE WATERS
 - COASTAL WETLANDS (MARSHES)

© PLANNING & DESIGN ASSOCIATES, P.A., SALEM, NC, JANUARY, 1991
REVISED: FEBRUARY, 1991

a. Coastal Wetlands

These areas are defined under 15 NCAC 7H as any salt marsh or other marsh subject to regular or occasional flooding by tides, including wind tides. Coastal wetlands contain some, but not necessarily all of the following marsh plant species listed in the Appendix, page 125.

As shown on the above Fragile Areas Map, page 8, coastal wetlands are found on much of the shoreline of the Pasquotank and North Rivers, especially along the tributaries adjacent to Raymond Creek.

These marshes are significant because they support the unique productivity of the estuarine system. Without the marshes, the high productivity levels and complex food chains typically found in the estuaries could not be maintained. Particularly, this would affect fishing, hunting, and shellfishing, and the estuarine shoreline's first line of defense against erosion would be lost.

Primarily because of their remote location and of the effectiveness of state and federal regulations, there is no apparent imminent threat to these marshes in the County. Thus, the major issues facing the Commissioners relate to the need to protect this valuable resource in the future.

b. Estuarine Waters.

As shown on the Fragile Areas Map estuarine waters consist of all waters of the Pasquotank River Basin downstream of the Highway 158 Bridge between Elizabeth City and Camden County; the Albemarle Sound and all waters of the North River south of the dividing line between coastal fishing waters and inland fishing waters.

Estuarine waters are defined in G.S. 11 3A-113 (b) (2) as "all the water of the Atlantic ocean within the boundary of North Carolina and all the waters of the bays, sounds, rivers, and tributaries thereto seaward of the dividing line between coastal fishing waters and inland fishing waters, as set forth in an agreement adopted by the Wildlife Resources Commission and the Department of Natural Resources and Community Development filed with the Secretary of State, entitled 'Boundary Lines, North Carolina Commercial Fishing -- Inland Fishing Waters,' revised to March 1, 1965."

Estuarine waters are the dominant component and bonding element of the entire estuarine system, integrating aquatic influences from both the land and the sea. Estuaries are among the most productive natural environments of North Carolina. They support the valuable commercial and sports fisheries of the coastal area which are comprised of estuarine dependent species such as menhaden, flounder, shrimp, crabs, and oysters. These species must spend all or some part of their life cycle within the estuarine waters to mature and reproduce. Of the 10 leading species in the commercial catch, all but one are dependent on the estuary.

This high productivity associated with the estuary results from its unique circulation patterns caused by tidal energy, fresh water flow, and shallow depth; nutrient trapping mechanisms; and protection to the many organisms. The circulation of estuarine waters transports nutrients, propels plankton, spreads seed stages of fish and shellfish, flushes wastes from animal and plant life, cleanses the system of pollutants, controls salinity, shifts sediments, and mixes the water to create a multitude of habitats. Some important features of the estuary include mud and sand flats, eel grass beds, salt marshes, submerged vegetation flats, clam and oyster beds, and important nursery areas.

Secondary benefits include the stimulation of the coastal economy from the spin-off operations required to service commercial and sports fisheries, waterfowl hunting, marinas, boatyards, repairs and supplies, processing operations, and tourist related industries. In addition, there is considerable nonmonetary value associated with aesthetics, recreation, and education.

Currently, protection of the estuarine waters has been achieved through thoughtful monitoring of commercial activity farther north and enforcement of permit authority by the CAMA permit officer (see page 127).

Currently in Camden County there is no imminent threat to the biological, social, aesthetic or economic productivity of these waters. Of concern, however, is the continued conversion of land to agricultural uses, which increases erosion and the potential for over nutrification from fertilizer, as has been devastating for the Chowan River estuary. Thus, the issues regarding this AEC pertain to exercising a management system for conserving and utilizing estuarine waters so as to maximize their benefits to people and the estuarine system.

c. Estuarine Shoreline.

The third type of AEC in Camden County is estuarine shoreline. Although characterized as dry land, they are considered a component of the estuarine system because of the close association with the adjacent estuarine waters.

Estuarine shorelines are those non-ocean shorelines which are especially vulnerable to erosion, flooding, or other adverse effects of wind and water and are intimately connected to the estuary. This area extends from the mean high water level or normal water level along the estuaries, sounds, bays, and brackish waters as set forth in an agreement adopted by the Wildlife Resources Commission and the Department of Natural Resources and Community Development (described in Regulation .0206 (a) of 15 NCAC 7H, Appendix, page 134) for a distance of 75 feet landward.

Development within estuarine shorelines influences the quality of estuarine life and is subject to the damaging processes of shorefront erosion and flooding.

Because of the small scale and of overlaps with areas designated as coastal wetlands, the fragile areas map does not show estuarine shoreline. Nevertheless, it exists for a distance of 75 feet inland on all the land area bordering on the estuarine waters of the Pasquotank and North River.

Currently, there are potential threats to the protection of the estuarine shoreline in Camden County, primarily related to subdivision development near Taylor's Beach, Texaco Beach, Whitehall Shores, and Camden Point Shores. Incidental recreational development on the canal at the hunting club may have implications for the shoreline of the North River.

According to the 1976 CAMA Land Use Plan for Camden County, only the shoreline of Texaco Beach was classified as Community; while the shorelines of Whitehall Shores and Taylors' Beach were classified as rural. South of there, the shoreline is shown as conservation, signifying that the land should be maintained essentially in its natural state with very limited or no public services provided.

Most development at Taylor's Beach, Texaco Beach, and Whitehall Shores (formerly Elizabeth City Beach) predates the CAMA designation. However, some development of Camden Point Shores, particularly in the estuarine shoreline has occurred since the Land Use Plan has been in effect.

All development in these areas has been residential or recreational and thereby consistent with the community and rural designations, while violating the conservation designation of the shoreline of Camden Point Shores.

Thus, the issues facing the Commissioners pertain to better articulating the uses it wants permitted in the estuarine shoreline, re-designating areas for protection, and incorporating appropriate enforcement language into its zoning and subdivision regulations. These issues are addressed below and illustrated in the Land Classification Map, page 54 .

d. Public Trust Waters.

As encompassed in Section .0207 of 15 NCAC 7H (see Appendix, page 128), public trust waters in Camden County means essentially all navigatable waters, thus overlapping the estuarine waters discussed above. Public trust waters extend upstream, above the estuarine water designation, to the limits of navigation. In Camden County, public trust waters are those located in the Pasquotank River north of the Highway 158 bridge.

Such waters are important to the County, as well as to the Coastal Resources Commission because the public has rights in these areas, including navigation and recreation. Additionally, these waters have commercial and aesthetic value to the community, and are important resources for economic development.

Currently, there are no imminent threats to the public trust waters in Camden County. Thus, the issues regarding them facing the County Commissioners pertain to protecting the public rights for navigation and recreation and safeguarding their biological, economic, and aesthetic value.

Alternative policies considered in dealing with all four types of Areas of Environmental Concern include: allowing no development in AEC's; attempting to better enforce regulations of the state AEC's; and to modify the County's zoning ordinance, subdivision regulations; and undertaking fiscal policy decisions, so as to better protect AEC's.

Goal: To safeguard and perpetuate the biological, social, economic and aesthetic value of the Areas of Environmental Concern in Camden County.

Objective 1:

To encourage and otherwise permit only those uses which are demonstrably consistent with protection of salt marshes, in the following priority:

conservation; development activities that require water access and cannot function elsewhere.

Implementation Strategies.

Incorporate language of permitted uses and non-permitted uses from 15 NCAC 7H into the County's zoning ordinance (permitted uses include: utility easements, fishing piers, docks, and agricultural uses as permitted under the NC dredge and fill act--non-permitted uses include: those enumerated in Section .0205 of subchapter 7H (restaurants and businesses; residences, apartments, motels, hotels, and trailer parks; parking lots and private roads and highways; and factories.

Objective 2:

To permit only those uses in estuarine waters which are demonstratively consistent with the goal in the following priority:

conservation; development activities which require water access and cannot function elsewhere.

Implementation Strategies.

Adopt the following lists of permitted uses as County policy to be used in the granting of CAMA permits.

Permitted Uses:

access channels, structures to prevent erosion, navigation channels, boat docks, marinas, piers, wharfs, mooring pilings.

Adopt the following list of non-permitted uses:

restaurants and other businesses, residences, apartments, and trailer parks, private roads and highways, parking lots.

Objective 3 :

To protect the dynamic nature of estuarine shorelines and the values of the estuarine system from improper development.

Implementation Strategies.

Adopt the following lists of permitted uses and non-permitted uses as official County policy to be used in the granting of CAMA permits:

Permitted Uses:

conservation activities, recreational activities, agricultural activities, commercial forestry, public access boat ramp, as described under Objective 1 above, low density residential use.

Non-permitted Uses:

industrial uses, commercial enterprises other than those connected to uses permitted in estuarine waters; trailer parks.

Otherwise abide by the use standards of 15 NCAC 7H (see Appendix, Section V below).

Designate estuarine shorelines as conservation areas on the Land Classification Map and append it to the zoning ordinance so as to use it in deliberations regarding development decisions.

Objective 4:

To protect public rights for navigation and recreation, also to manage and preserve the public trust waters.

Implementation Strategies.

Adopt the general and specific use standards outlined in Section .0208, subchapter 7H into the zoning ordinance so that the Commissioners will have explicit criteria to use in determining the extent to which a proposed development hinders or enhances public access to and monitor the use of public trust waters.

Set aside public access points for private or public development for improved access to public trust and estuarine waters near the following locations:

1. the end of road at Old Trap (state owned land) (Shiloh Township)
2. Elizabeth City Beach (state owned land) (Shiloh Township)
3. Old Ship Yard Road (Courthouse Township)

2. Constraints to Development.

a. Physical Limitations for Development.

As shown on the maps throughout this document, Camden County is covered with areas which are likely to have conditions making development costly or causing undesirable consequences if developed. These include areas with natural and manmade hazards; soil limitations; sources of water supply, and areas with resource potential.

(1). Hazard Areas.

Several of the hazard areas in Camden County are shown on the attached Hazardous Area Map including man-made hazards such as the construction of Highway 17 North, gasoline storage tanks in South Mills and fertilizer storage tanks in Courthouse Township, the railroad along Highway 158, County landfill, the flight path of the Coast Guard air station in Pasquotank County, sand pits and unauthorized dumping. Additionally, there are natural hazards such as having 50% of the surface designated as flood-prone, and 32 miles of eroding shoreline. Not only do these conditions affect development itself, but they pose special constraints upon resource protection policies for the County's future.

Based upon the consultants assessment of available data, the citizen survey, and worksessions with the CCDAC, the constraints presented by the following hazards have been deemed significant enough to warrant policy discussion and statements (see page 26 below).

(2). Shoreline Erosion Areas.

Of the 38.8 miles of shoreline studied in 1975, 32 miles (82.5%) show signs of erosion. At a rate of 1,042 tons/mile/year, this represents a serious problem. Thus concern has been expressed regarding improper development of estuarine shoreline and otherwise, need for preventive measures for reducing the rate of erosion elsewhere.

Alternative policies include locally adopting an erosion control ordinance and erosion control measures in high density development near the shorelines.

Goal: To protect areas subject to shoreline erosion, particularly in the face of larger scale development.

Objective:

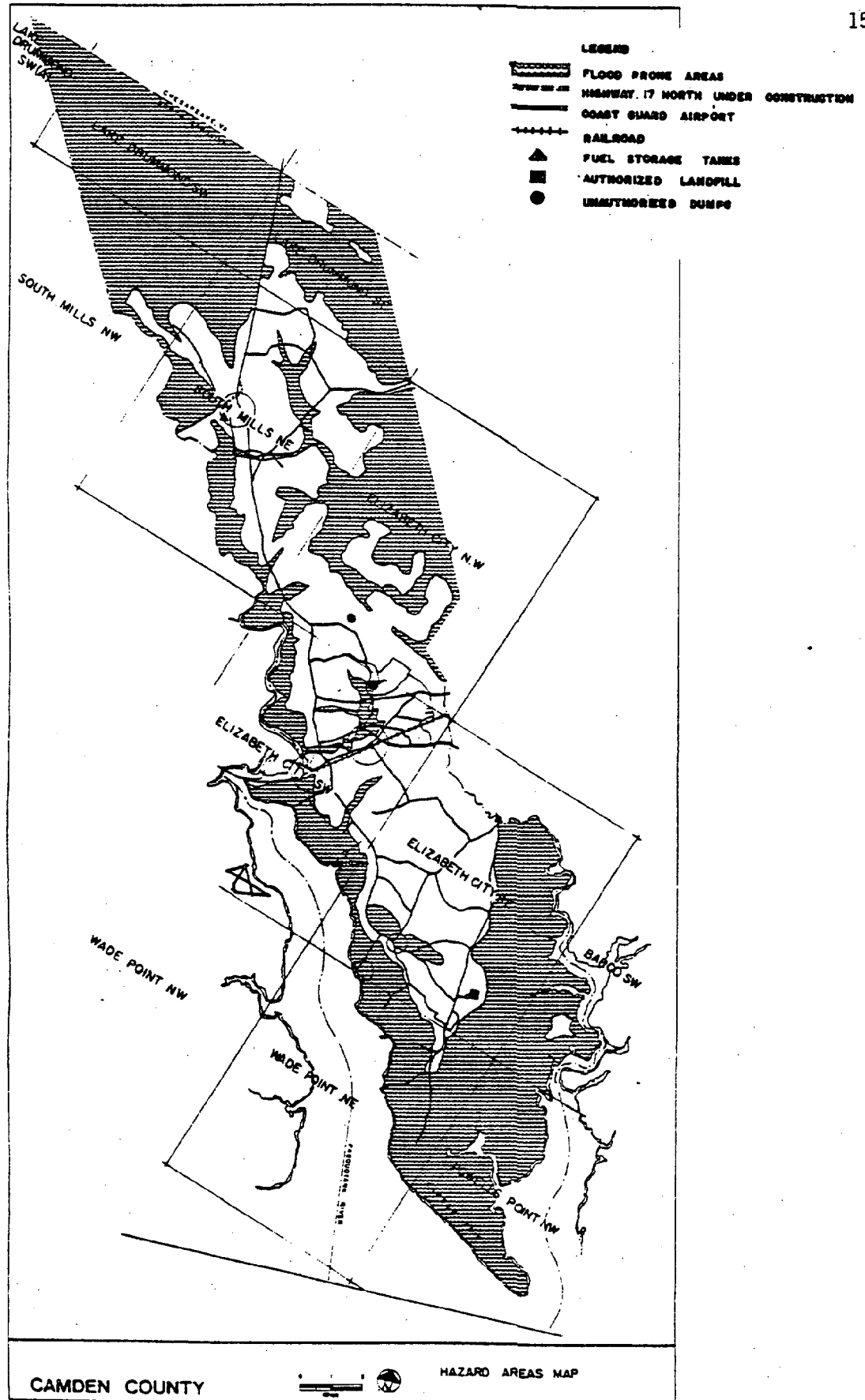
To prevent development near the shorelines which may increase the already high rate of erosion.

Implementation Strategies:

Enforce the list of permitted uses and use standards for areas designated as estuarine shorelines (see Appendix, page 134).

Contact the Albermarle Soil and Water Conservation District (338-6616) for erosion control techniques.

Require that appropriate erosion control measures be undertaken to stabilize the shoreline where potential for increased erosion is great, as determined on a case-by-case basis.



(3). Areas Subject to Flooding.

Flood-prone areas make up approximately 50% of the County's surface. Camden County is participating in the Federal Flood Program, having adopted resolutions to "enact as necessary and maintain in force for those areas having flood or mudslide hazards, adequate land use and control measures with effective enforcement provisions consistent with the Criteria set forth in Section 1910 of the National Flood Insurance Program Regulations...", designating the Planning Board with responsibility and authority and means to delineate limits..., provide information for administration..., cooperate with agencies or firms identifying flood plain areas..., and maintain records of elevations of all new or substantially improved structures located in the special flood hazard areas..., and to take other actions necessary to carry out the objectives of the program. Additionally, the Code Enforcement Officer is empowered to require new construction will be undertaken in a manner which will reduce flood damage.

Development of adequate policies oriented at reducing erosion and otherwise protecting flood-prone areas as well as reducing property damage from unplanned development, is hampered in Camden County because of the incomplete status of the Federal Flood Program's study.

Alternatives regarding development of these areas included allowing well designed residential and recreational uses in these areas, establishing these areas as conservation areas, improving the County's activity under the Federal Flood program, disallowing local public assistance for the reconstruction of private structures on designated floodplains, when floods occur, and allowing no County public works projects to be constructed in designated floodplains, other than road and some recreational facilities.

Goal: To protect areas prone to severe flooding from improper development.

Objective:

To equip the County Commissioners to better influence the types of development inside areas which are flood prone.

Implementation Strategies.

Request that the Federal Insurance Administration contract for a detailed Flood Hazard study to identify specific flood elevations and thereby provide the background information necessary for promoting appropriate development in the flood plain.

If indicated by the study, revise the zoning ordinance to provide specific standards for location of development in the flood plain.

Also, if warranted by the study adopt a floodplain development ordinance to regulate location and to strengthen and enforce construction standards, requiring flood-proofing measures, for structures located on designated floodplains.

(4). Soils.

Camden County contains many areas in which the soils pose limitations for development. Approximately 54% of the County is a very wet soil with a high water table, in many areas inundated much of the year. These areas are generally unsuitable for development, even if the water is drained off. Much of the rest of the County is covered by soils association which pose moderate to severe limitations for development. However, even within these areas, sites exist which are suitable for development (see pages 106-109).

No specific soils survey has been done for Camden County, so determination of soil suitability must be done by on-site inspection.

Alternative policies considered by the Commissioner range from designating areas with particularly poor drainage and high water table as "conservation", thereby not allowing their development and thereby foregoing public health problems; doing nothing; and directing improvements like water and sewer away from areas which have poor soils, thereby directing higher density development toward better soils.

Goal: To direct development with proper consideration of soils.

Objective:

To permit development in areas of unsuitable soils at a lower density and in such a manner as to minimize detrimental impact to soil resources and to the development itself.

Implementation Strategies.

Support the detailed soil survey scheduled to begin in 1982 and be completed in 1985.

Work with the Health Department to identify areas of soils with limitations for septic tanks and to enforce septic tank standards.

Identify areas where clay soils pose severe limitations for foundations. Alert the Building Inspector to these areas so that appropriate construction techniques can be used.

Require submission of the preliminary plat to the Camden County Board of the Albermarle Soil and Water Conservation District for technical comments, which become part of the Commissioners decision to approve the preliminary plat.

Establish stricter construction standards (for foundation design and stability) for development on less suitable soils identified through work with the SCS.

Revise Zoning Ordinance to require one acre lots (minimum) in known areas where soils are unsuitable for septic tanks.

3. Specific Local Resource Development Issues Relative to Areas of Environmental Concern Designated under 15 NCAC 7H.

The Areas of Environmental Concern in Camden County are coastal wetlands, estuarine waters and shoreline, and public trust waters.

As shown in the next section, page 22, other hazards or fragile land areas include wooded swamps, unique scenic areas, remnant species habitats, and cultural, historical and archeological sites.

These two fragile resource groups are particularly susceptible to adverse impacts of development of Camden County's major resources: agriculture, forestry, mining (peat), and parks.

In this section a brief summary of local resource development issues relative to only the AEC's is presented. Similar issues and policies for other hazard/fragile areas will be presented in the next section.

a. Agricultural Resources.

The 1978 Census of Agriculture notes that consumption of land for agricultural uses is rising in Camden County. Between 1974 and 1978 the total number of farms increased 11%, the total acreage in farms rose 7%, the number of farms with crop land rose 16%, and the number of acres under production rose 24%.

Assuming conventional practices of fertilizing, land clearing, increased potential for erosion, and inevitable disruption to the ecology, these data indicate that there is more potential for impacts upon the Areas of Environmental Concern now than there was in 1974, and this is likely to increase in the future.

Location of potential impact areas was achieved through comparing information from the USGS with the Land Use Composite Map, page 68. This revealed that the only AEC which has agricultural practices in close proximity is the estuarine shoreline of the Pasquotank River. (This area corresponds to the white area on that shoreline shown on the Fragile Areas Map, page 8). More detailed site inspection is required to determine the nature of these impacts, inspections which are beyond the scope of this Land Use Plan update.

Other AEC's, including estuarine waters, coastal wetlands, and public trust waters, are assumed to be affected by agricultural practices farther away. No significant problems have yet been sighted.

Assuming sound soil conservation practices and basic respect for the land by Camden's farming community, and without reports or other data of problems in the AEC's from agricultural practices, we must assume that use of Camden's agricultural resources are not imposing significant problems upon its AEC's.

Therefore, no policy statements, other than those stated in Section II.A., page 29, were developed by the Camden Development Advisory Committee.

b. Forest Resources.

Though 107 of the County's 152 land square miles (70%) consists of wooded areas, only 20% of this wooded land is "forested" and suitable for conventional forestry production (see discussion in Section IV, page 87).

Interviews with citizens across the county and results of the citizens survey revealed that drainage of wooded swamps and other clearing of land for commercial forestation has increased recently and is likely to increase in the future.

Examination of the General Soils Map reveals that all the soil associations in the County except Dorovan-Dare-Johnston (#10) are rated good for both forestation and agricultural uses. Overlaying that association with the Fragile Areas Map reveals that the poorest soils for forestry (and agriculture) are the wetlands and areas designated as wooded swamp.

This rather even distribution of land suitable for forestry and agricultural production indicates that sites potentially good for forestation are inland and farther from the AEC's in Camden County (than are the agricultural resources previously noted). Thus, potential impacts upon the AEC from forestry are likely to be indirect, rather than direct.

Because no problems have been noted with regard to forestry and the AEC's, no policy statements other than those in Section II. A above, page 6, are offered here. The Commissioners feel that the existing CAMA regulations for AEC's adequately protect the County with regard to commercial forestation and the environment.

c. Dismal Swamp Peat Deposits.

As shown on page 20, about 1/3 of North Carolina's Dismal Swamp peat deposit lies in Camden County. This means that between 17 and 25 million tons of moisture-free peat may be present in the County.

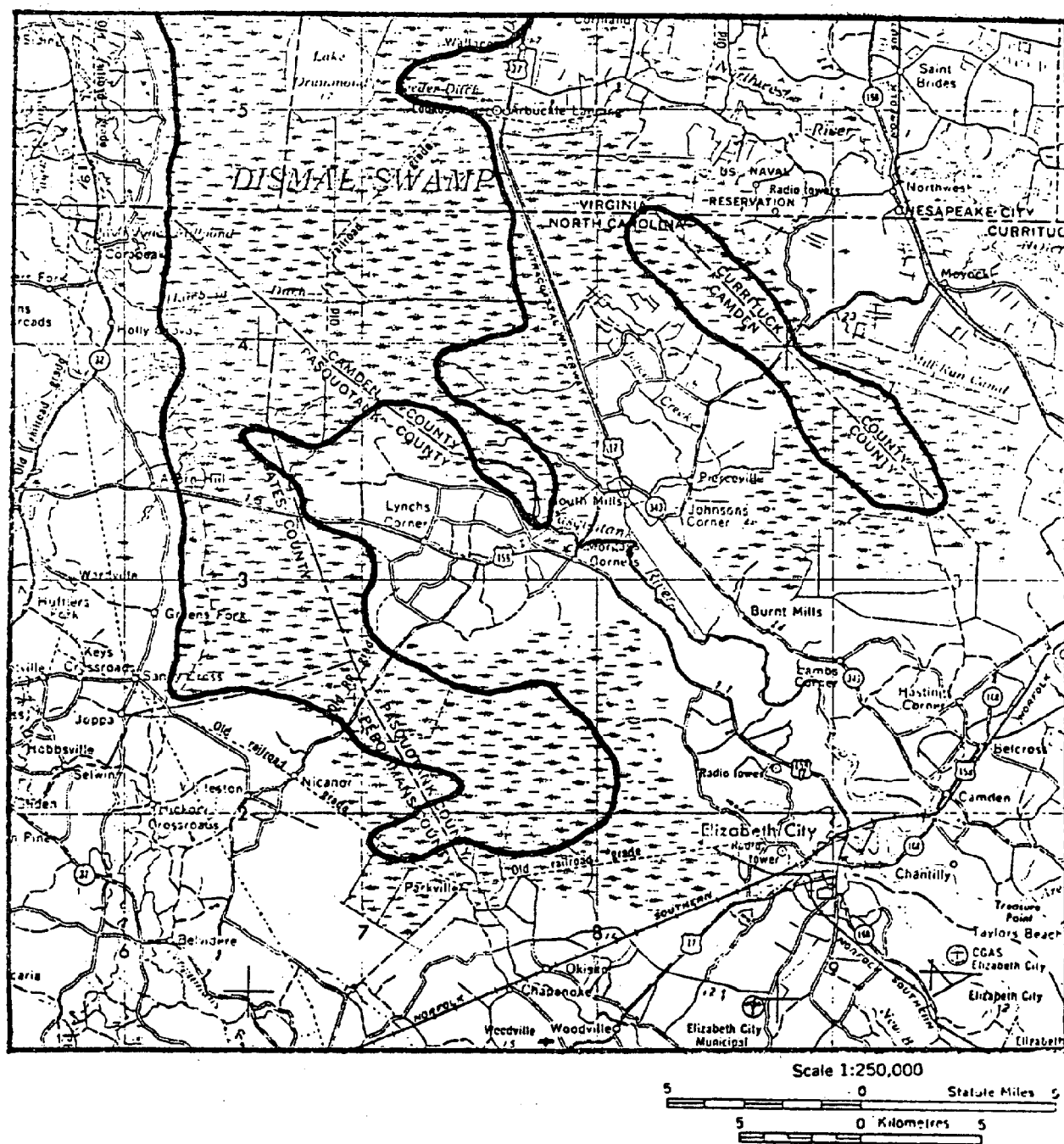
As noted in the 1980 Annual Report on Peat Resources of North Carolina, the North Carolina portion of the Dismal Swamp drains south into the Pasquotank, North, and Little River systems, that is, into the public trust waters and the estuarine waters (AEC's) of Camden County.

The North Carolina portion of the swamp is now cut with numerous drainage canals set at $\frac{1}{2}$ and one mile intervals. These canals would likely increase run-off if the existing peat was mined, increasing the impact upon these AEC's.

Though the eastern portion of the Dismal Swamp, east of the Intracoastal Waterway and southeastward along both sides of the Currituck-Camden County line has been partially cleared and cultivated, no peat mining has occurred.

Thus, the Commissioners are mindful of the impacts of peat mining in other counties and consider any proposals for mining in light of their impacts upon the AEC's.

Because the Commissioners feel the State's CAMA regulations adequately provide for this eventuality, no additional policies are presented here.



1980 Annual Report on Peat Resources of North Carolina
 to North Carolina Energy Institute, U.S. Department of Energy
 by Lee J. Otte and Roy L. Ingram, Department of Geology
 University of North Carolina, Chapel Hill, NC 27514

d. Parks/Recreational/Conservation Areas.

The fourth type of resource development which could have impacts upon the AEC's in Camden County consists of designated parks, recommended recreational trails, and fishing streams. Page 86 shows the publicly owned parks in the County.

As noted in the discussion in Section IV, pages 85 and 86, the most outstanding park resource in the County is the Dismal Swamp State Park, which could be developed into a major tourist attraction for camping, hiking, and nature study. Full implementation of the Dismal Swamp State Plan could result in 50,000 to 100,000 visitors to the area per year. Given the park's location adjacent to the public trust waters, there could be impacts upon this AEC if activities are not properly monitored.

Additionally, the North Carolina Water Resources Framework (NRCD) recommends that the public trust waters in Camden County be used as water trails primarily for canoes. As with other intensified uses of AEC's, even for passive recreational purposes, new impact will be occurring.

Under the same Framework, the North River Basin is recommended as a natural and scenic river, and the North River itself is designated as a public fishing stream. Again, increased use of these estuarine waters should be closely monitored by the County and activities kept consistent with the CAMA guidelines (15 NCAN 7H).

Thus, Camden has vast park/recreational/conservation areas which can attract tourists and nature lovers. Since these are directly using the AEC's, they will be appropriately monitored. Because the existing CAMA regulations list such uses as permitted and are adequate as enforcement tools, no additional policies were developed by the Camden Development Advisory Committee.

4. Other Hazardous or Fragile Land Areas.

This section presents brief discussions, alternative policies considered, and policy choices for hazardous or fragile areas other than those already mentioned (AEC's). These include the County's wooded swamps, its areas which protect remnant species, its potentially significant cultural, historic, and archeological sites, and its air resources. Much of the basis for these policy choices is presented in Section IV, pages 82 - 88 and 111 - 113.

a. Wooded Swamps.

As noted in Section IV, page 87, approximately 50% of the County's land area is covered by wooded swamp. Wooded swamps are valuable to the county because they slow down the rate of water run-off from developed areas thereby reducing erosion; trap nutrients which provide feeding grounds for fish and other species; and provide a habitat for black bear and other wildlife. These areas are recognizable by their stands of cypress, tupelo, red maple, and shrub swamp vegetation (alder, willow, and button-bush).

The 1981 citizens survey reported that 45% of those responding felt that drainage of forested land (wooded swamps) to agricultural or commercial forest uses was a slight, moderate, or serious problem facing the County (18% said it was serious). This is particularly true in the case of larger commercial landowners (corporate) with regard to forestation.

Drainage of swamps in Camden County is understandable since much of the land is unsuitable in its present condition, and there is much competition for more intense (urban) uses for the more suitable land. However, continued drainage of wooded swamps may result in several undesirable consequences.

- . Depletion of groundwater levels because of increased run-off.
- . Damage of important ecological functions now performed by the wooded swamps, such as filtering of pollutants and nutrient entrapment for the estuary.
- . Loss of wildlife habitat.
- . Loss of peat moss found in the pocosins.

Alternative policies considered toward preventing these consequences included increasing enforcement of the Clean Water Act which requires a permit from the Corps of Engineers for placing fill material in wooded swamps; designating wooded swamps as "conservation areas" on the Land Classification Map, thereby preventing intensive use; requiring buffer zones or setbacks be used between swamps and agricultural and forestry harvesting so as to protect the integrity of the swamps ecological function; and the ones chosen below.

Goal: To protect and preserve the ecological value of Wooded Swamps.

Objective:

To appropriately minimize the drainage and clearing of wooded swamps and their conversion to other uses.

Implementation Strategies.

Classify wooded swamps as "resource protection districts" or "locally significant fragile area" in the County Zoning Ordinance and develop corresponding "districts" which require a permit for development.

In these districts the guidelines for approving permits will be the same as those for the State AEC's, particularly coastal wetlands. No development is to be permitted which will require dredging, clearing or filling except farm uses, and then, only for acceptable amounts clearly stated in the Zoning Ordinance and enforced by the permit officer.

Only other uses are to be permitted which require the interface of wetland areas with water uses and then, only with adherence to rules and regulations of CAMA and the Corps of Engineers.

Non-permitted uses include the extension of utilities and the extension of public works projects, including those of the state, except for light recreation.

Prohibit development or land clearing within 100 feet of the edge of a wooded swamp so as to provide adequate protective buffer.

Require adequate erosion control practices within 100 feet of wooded swamps. Erosion control practices to be considered include continuous silt fences and/or continuous hay bales surrounding bare construction sites.

b. Areas that Sustain Remnant Species.

As noted in Section IV, page 111, there are five species in Camden County designated as remnant (endangered or threatened) by the NC Natural Heritage Program , NRCD.

These species have been sighted in the large wooded area west of the North River from Broad Creek to the intersection of Indian Creek and US 158; the forested area adjacent to the Pasquotank River from the Elizabeth City Bridge of US 158 up to the northern corner of the County; and in Dismal Swamp State Park and adjacent forested areas at the northern end of the County.

Alternatives considered for protection of the species through appropriately using or not using these areas included increasing community awareness of remnant species and AEC's; preventing development in these areas; and the policies chosen below.

Goal: To enhance the potential of survival of remnant species in Camden County.

Objective:

To protect remnant species and their habitats from incompatible development.

Implementation Strategies.

Classify remnant species habitat as "resource protection districts" in the County zoning ordinance, requiring a County permit for development. Include species protection language in the guidelines for issuing development permits in "resource protection districts." Permitted uses will be limited to light recreational and environmental education facilities which do not disrupt these habitat areas.

Allow no County Public Works projects to be constructed in remnant species habitats, other than light recreation facilities (e.g. trails and picnic areas).

CAMDEN COUNTY, NORTH CAROLINA

T. F. "Buck" LEARY, Chairman
PAUL DeBERRY, Vice Chairman
KENNETH WHITEHURST
SAMUEL K. SHAW
J. C. ROUNTREE
JACK LEARY, Clerk

OFFICE OF THE BOARD OF COMMISSIONERS



Camden, N. C. 27921

August 25, 1981

Dear Resident of Camden County and Others Whom it May Concern:

The Board of Commissioners and of the County of Camden are pleased to present
The Land Use Plan of Camden County: 1980-1990.

You are invited to review it and make comments between now and the 5th of October, by contacting Mr. Jack Leary, Clerk to the Board, at 335-4077, or by appearing at the public hearing.

As announced in the Daily Advent, that public hearing will be held on Monday, October 5, 1981 at 11:00 am in the commissioners meeting room. At that time, your concerns will be considered in light of a decision to officially adopt the plan. After adoption, the Plan will help guide the County's development over the next ten years.

We appreciate your consideration of this matter and look forward to your comments.

Sincerely,

T. F. Leary, Chairman
Board of Commissioners

RT/jr

c. Cultural and Historic Resources.

As noted in the discussion of cultural and historic resources in Section IV, page 82, Camden County has 5 sites listed in the National Register of Historic Places and two on the state's National Register Study List. The Department of Cultural Resources has a total of 58 potential historic sites in its Camden County file; many of those are listed in the 1976 Land Use Plan. Section IV, page 94 also presents the County's archeologically significant sites. Currently, there is no imminent threat to the 21 resources listed in the 1976 Plan, except the construction of Hwy. 17 through the Dismal Swamp and the apparent damage to the ecology of Camden Point.

As noted in the section of current plans and policies, page 98, the County's policy of taxing all structures at the same rate per square foot, regardless of age and historical significance, works counter to preservation objectives. The 1976 Land Use Plan objective of allowing historic structures that are being restored as historic sites to be considered for a reduction in local taxes has not been achieved. Federal tax incentives and investment benefits are still available, however, which provide preservation financing for those in high income tax brackets (various types of preservation) and for those in other tax brackets (rehabilitation of income producing property).

Because 70% of those responding to the 1980 citizens survey agree that historic assets in the County should be preserved as an important link with the area's past, the policy choices considered by the Camden Development Advisory Committee include publicizing the importance of the County's historic sites and the sites identified by the NC National Heritage Program; conducting a countywide survey of historic sites and properties; engaging NCSU in a preliminary survey; and the ones chosen below.

Goal: To guide development so that it protects the historic and potentially historic properties in Camden County and perpetuates the County's cultural heritage.

Objective:

To equip the county to better protect and preserve such assets.

Implementation Strategies.

Enforce all applicable laws regarding archeological and historic sites.

Promote the use of federal investment benefits (10% investment tax credit, rapid amortization, and accelerated depreciation) among eligible private owners of historic properties as a mechanism to help finance preservation of these resources.

Reconsider a local tax reduction for owners of historic properties who show plans and progress toward restoration, as defined by locally determined criteria.

Consider funding a countywide survey of historic sites and properties using technical assistance from the NC Department of Cultural Resources. In the interim the list, available from the Department, of potential and known historic and archeological sites could be attached to the zoning ordinance (or included in a special chapter) as a basis for making development decisions with more attention to these resources.

d. Man-Made Hazards.

As shown on the Hazardous Areas Map, page 15, man-made hazards in Camden County consist of construction of US 17 North; fuel storage tanks in South Mills; unpermitted dumps; the railroad along Hwy. 158; the county landfill; and the Coast Guard Air Station in Pasquotank County. In addition, the 1981 housing survey identified 123 vacant dilapidated structures (as well as 87 inhabited structures) which may be considered as hazards to safety and well-being. Other points which may be considered hazards are discussed in more detail and also mapped under the discussion of land use incompatibility problems, page 91.

Policy alternatives considered by the Advisory Committee included leaving the dilapidated buildings, conducting a volunteer demolition campaign, and using the powers of county and state government to have them removed to promote health and safety, and appealing to owners to rectify hazards or post adequate notices for safety.

Goal: To minimize the adverse impact of man-made hazards upon humans and adjacent development.

Objective:

To equip the county to deal with the current dilapidated structures and other hazards and to better deal with man-made hazard issues which might accrue in the future.

Implementation Strategies:

Make a special appeal to owners of such property, such as inviting them to a special meeting of the County Commissioners to discuss their plans for improving or demolishing the units or otherwise rectifying the hazard.

Use the state building code regarding the establishment of a County ordinance which would equip the County to put a lien on the property and thereby recover the cost of demolition in order to have the lien removed.

Require a buffer zone of 300 feet between unrelated residential uses and commercial oil and pesticide storage facilities, other man-made hazards, and industrial facilities.

Require fences at least 6 feet high (or alternatively, clear signs) around all sand pits, landfills, and other operations that may pose a threat to the safety of passersby (this does not include public building or recreational areas).

5. Hurricane and Flood Evacuation Needs and Plans.

In September, 1980 Camden County officially adapted an "Emergency Management Hurricane Evacuation Plan."

Because of the threat of hurricanes to the County and because of the extensive area covered by flood-proneness, the need for this clear Hurricane and Flood Evacuation procedure is apparent. Under the plan, the public can be made aware of an early warning system and steps to take for early evacuation. Such warning can be administered through the control groups and support groups designated, and the plan. While developed for hurricanes, this plan provides for evacuation of low-lying, flood-prone areas.

Goal: To properly protect life and property in the wake of hurricane or flood disaster.

Objective:

To prepare the residents of Camden County for appropriate action in the event of hurricane or flood disaster.

Implementation Strategy.

Conduct an exercise annually to test the County's evacuation plan, and conduct other forms of community education through churches, civic clubs, and schools.

C. Resource Production Issues and Related Policies.

As indicated by the attention given resource protection and the apparent overlap between resources, like forests and prime farmland, which teeter between preservation and production, Camden County has an abundant supply of natural resources which are vitally important to the County's economic well being.

Results of the citizen survey and worksessions with the Camden Development Advisory Committee identified the following priority issues regarding resource production:

- Conversion of wooded swamp to agriculture and forestry
- Need to broaden tax base so as to support production
- Loss of pasture lands to more urban uses
- Excessive rate of shoreline erosion
- Need for better forest management
- Need to update zoning ordinances and subdivision regulations
- Farmland erosion from wind.

Among these, the large tracts of agricultural lands and forest lands are the most important and are the focus of the following policy discussion.

The County does not have a significant current mineral production. However, the potential of peat mining as a future energy resource warrants policy consideration.

Commercial fishing produces considerable income from the sale of catches in the Albemarle Sound to major wholesalers in Elizabeth City and therefore will receive promotional consideration below.

Recreational fishing of the North River is not considered a "resource production" issue in Camden County and therefore will receive policy development.

The Advisory Committee does not consider the use of off-road vehicles to be a problem, and it will not receive policy development.

1. Agricultural Lands.

As noted in the discussion in Section II, page 18 and Section IV, page 87, regarding the productivity of Camden's agricultural resources, agriculture is the heart of the local productive economy.

Between 1974 and 1978, the total value of farm production dropped from \$15,170,000 to \$14,500,000 and income per farm declined from \$101,000 to \$87,000. Nevertheless, the value of the average farm rose 66% from \$171,000 to \$285,000.

Thus, from the standpoint of income and local tax base, it is essential for the agricultural resources in Camden County to remain productive. One way to do this through the Land Use Plan is to protect productive agricultural land from inappropriate and encroaching urban-type development.

The range of policies available to the County to promote the productivity of prime agricultural land extends from passive support to active intervention.

Through innovative taxation and zoning programs, the County could encourage the use of land resources at the most economically productive level. This policy could discourage speculation and promote the use of lands not presently in cultivation. Depending on a local owner's ability to improve or expand farming activities, the County could develop a strategy to promote short-term profits, increasing conversion of farm land.

On the other hand, a less intervening policy is one that rewards sound farming practices and directs the natural conversion pressures into marginal areas. A policy of long term gain in agricultural productivity could have two aspects: improved management through education and soil fertility improvement programs. The introduction of more labor intensive crops to the County could generate more local demand for labor and affect the job commuter and possibly the youth out-migration rates. Such a policy of steady increase in agriculture's share of the county economy is consistent with a rural farming past and its projected future.

Goal: To achieve maximum sustained yields from Camden County in a manner which is consistent with other development goals.

Objective 1:

To improve local agricultural management techniques.

Implementation Strategies.

Assist in farmer education through use of county buildings for classes and in other ways support the Agricultural Extension Service.

Establish financial rewards and incentives for good management practices through provision of administrative advice and assistance to applicants for Albermarle Soil and Water Conservation District's assistance through SCS and ASCS programs; work with these agencies to create a tax classification (tax break) based upon sound management practices.

Objective 2:

To maintain acreage for agricultural production (and limit its conversion to other uses).

Implementation Strategies.

Develop agricultural zoning, separate from the current RA zones, which better protects agricultural productivity.

Develop preferential tax treatment for lands in production or cover cropped so as to stimulate and maintain production. Simultaneously reduce taxes on wooded swamps and other untillable land so as to not inappropriately stimulate drainage, etc.

Classify agricultural lands as "rural" in the Land Classification Map.

Discourage extension of public services (such as water and sewers) and facilities into prime and other very good farmland through the A-95 review process and other mechanisms for safeguarding environmental impact.

2. Commercial Forestry Production: Existing and Potential.

Though 107 of the County's 152 square miles of land (70%) is covered by woods, only 20% of this wooded land is "forested" and suited for commercial forestry production (see Section IV, page 87).

While lumber and pulp-wood operations have not been extensive, timberland, like agricultural land, is a prime productive resource in Camden County. Examination of the General Soils Map in light of existing land use patterns indicates that the land good for timber is also best for other uses. Thus it is important that, if forestation is to reach its economic potential, close attention should be paid to the manner in which competing uses for land fit together.

Policy alternatives regarding forestry productivity range from discouraging it to active promotion. Since the economic importance of lumber products is still small, discouraging further development would not create significant economic disruptions. On the other hand, a policy which actively promotes sound forestry practices while preserving certain areas unsuitable for management (wooded swamps, conservation areas, etc.) may lead to an increase in the role of lumber products in the County's economic base, particularly since wood is becoming a significant energy source.

Whatever strategy is chosen, care must be taken to keep in balance the desire to protect remnant species and the environment while appropriately undertaking economic production. Like the tight rope between increasing agriculture and draining wood swamps, balancing goals regarding forestry is the essence of this "Resource Production" section of this Camden County Land Use Plan.

In this light, alternatives considered by the Advisory Committee include: supporting selective federal and state programs that deal with the management of commercial forests in the county; setting aside areas as prime timber land so that potential conflicts with remnant species areas are clear; limiting public investment into prime timber areas so as to channel community development (urban) uses elsewhere, and the policies chosen below.

Goal: To achieve maximum sustained yields from forest resources in Camden County in a manner which is consistent with other development goals.

Objective 1:

To improve local forest production management techniques.

Implementation Strategies.

Assist in education of forest owners through use of county buildings for classes and in other ways support the Agricultural Extension Service.

Establish financial rewards and incentive for good management practices through provision of administrative advice and assistance to applicants for US Forest Service and ASCS programs; consider creation of a tax classification (tax break) based upon management practices.

Objective 2:

To maintain acreage for forest production (and limit its conversion to other uses).

Implementation Strategies.

Develop woodland zoning, separate from the current RA zones, which better protects timber productivity.

Acquire conservation easements in critical areas.

Develop preferential tax treatment for lands in production or cover cropped so as to stimulate production. Simultaneously reduce taxes on wooded swamps and other untillable land so as to not inappropriately stimulate drainage, etc.

Classify forest lands as "rural" in the Land Classification Map.

Discourage extension of public services and facilities into prime farm land through the A-95 review process and other mechanisms for safeguarding environmental impact.

Objective 3:

To develop markets for local forest products.

Implementation Strategies.

Attract users of local forest products through: coordination with the NC Department of Natural Resources and Community Development for prospective business contacts (dry kilns, saw mill operations, frame-making shops, etc); utilize technical assistance available for such economic development from ARPDC in Hertford, NC to prepare brochures on local products for distribution to farmers at cost for use in their advertising activities.

Provide information to prospective markets elsewhere through county offices or local extension services.

Where possible, use local material in county construction projects.

3. Mineral Production: Peat and Sand/Gravel.

As shown on Exhibit 20 , page 20 , about 1/3 of North Carolina's Dismal Swamp peat deposit lies in Camden County. This means that between 17 and 25 million tons of moisture-free peat may be present in the County.

These deposits are highly organic and more than 70% combustible, making them attractive for use as fuels in industrial and electrical production.

Additionally, the following maps shows the sites of sand pits formerly under production. Between 1970 and 1975, these pits produced an average of \$3,750 per reporting year,* with 1977 being the peak year at \$7,000.

Alternatives considered regarding the County's mineral production: inducing and encouraging further study into the peat concentration and its potential and encouraging the continued development of the County's limited sand and gravel resources.

Goal: To develop mineral resources in a manner consistent with other development goals, particularly related to AEC's and agricultural/forestation.

Objective 1:

To develop markets for local sand/gravel resources.

Implementation Strategy.

Use local sand for all county projects.

Objective 2:

To allow development of the peat reserves if it does not result in adverse environmental impacts.

Implementation Strategies.

Maintain control over extraction through designation of peat reserves as shown on the map on page 20 as a "resource area of local concern" in the County's Zoning Ordinance, thereby requiring a permit for extraction.

Institute a county severance tax (if possible).

* Source: US Department of Interior, Bureau of Mines with NC NRCD, The Mineral Industry of North Carolina.

4. Parks and Outdoor Recreation Sites.

Parks and outdoor recreation sites are a potentially valuable productive resource to Camden County. Several of these have been addressed under discussion of Fragile Areas, page 111.

The most outstanding undeveloped resource is the Dismal Swamp, which has its own Master Plan for development of selected sections. It would provide limited access to visitors for camping, hiking, and nature study. Full implementation of the plan could bring 50,000 to 100,000 visitors to the area per year.

Alternatives considered with regard to promoting this resource include withdrawing the \$10,000 per year paid to Elizabeth City and developing public recreation in Camden County, potentially one site per township; undertaking new strategies for promoting public access to public lands and waters; approaching the state for further development of the Dismal Swamp Master Plan and the policies chosen below:

Goal: To increase the productivity of recreational resources, including tourism, in Camden County.

Objective:

To increase recreational opportunities in the County, particularly in the State Park, on other state owned lands and in areas designated in the discussion (Section IV, pages 86,111, and 112).

Implementation Strategies:

Direct development of tourist facilities to those areas most able to support such activities and where adverse impacts on local residents and the environment are minimized.

Support resurrection of the State Dismal Swamp Master Plan and seek its implementation.

Support the development of public or private access points (to public lands and waters) on at least one site per township.

Acquire access easements in areas where development has already occurred, if necessary.

Selectively require access easements in new development, with particular attention to scale (size) of development, through revising the subdivision regulations accordingly.

5. Commercial and Recreational Fishing.

Commercial fishing has been important to the County only through the sale of catches by individuals to markets in Elizabeth City. Therefore, no official policy is developed here other than to support all federal and state programs dealing with management and production from commercial fisheries.

Recreational fishing has received attention under the North Carolina Water Frameworks (NRCD), in that the North River has been recommended as a Designated Public Fishing Stream. While no official policy is presented here, the Commissioners wish to support this designation and intend to monitor its implementation regarding impact upon the AEC (estuarine shoreline).

6. Off-the-Road Vehicles.

The Board of County Commissioners has determined that off-the-road vehicles are not a problem, nor are they likely to have adverse impact on the value of the area's productive resources in the future.

D. Economic and Community Development.

In accordance with the CAMA guidelines for land use planning, the following issues are identified for policy discussion within the economic and community development category:

Types of development which Camden County wants to encourage, particularly regarding redevelopment of older areas and creation of new subdivisions

Policies on types and locations of industries desired;
Local commitment to providing services to development;
Types of urban growth patterns desired;
Redevelopment of developable areas.

Commitment to federal and state programs in the area;
Assistance to channel maintenance and beach nourishment;
Energy facility siting and development;
Tourism or beach and waterfront access.

Among these issues, local priorities are treated with explicit policy statements and others given for discussion only.

1. Types of Development Which Camden County Wants to Encourage.

Camden County is proud to be an agricultural community with a slow growth rate. The County Commissioners wish to maintain this trend or undergo a slight increase, as do 78% of those who responded to the 1981 citizen's survey. Only 20% want the County to strive to grow substantially over the planning period. This preference for slow growth was also a strong preference in the 1976 Land Use Plan. Since that time, development issues have remained similar.

The promotion of manufacturing or assembly industries encouraged in the 1976 plan has not occurred nor apparently, has an economic situation which would stimulate such development. No strong infrastructure has been developed, primarily because of the low tax base and chosen slow growth policy adopted by the County. Some commercial objectives were, however, achieved as a small shopping center opened in Courthouse Township. This type of development is expected to increase as the cost of driving to neighboring counties for basic needs increases.

Residential development has increased slowly. The development of second and recreational homes has proceeded slower than anticipated, especially in Camden Point Shores. Mobile homes are scattered throughout the County, often along major roadways where land for existing and potential development lies. Other uses such as institutional and recreational opportunities have not changed significantly since 1976.

The population projections (page 120) show that without a deliberate strategy for industrial and commercial recruitment, the County's slow growth philosophy is likely to fulfill itself. Opportunities for stimulating development were identified in the 1981 citizens survey which also provided information about the types of development the County desires.

As shown below, there are relatively strong feelings for both development (agricultural, industrial, commercial, and tourism) and preservation (environmental, historic and natural resources) in the County. This illustrates the unique opportunities for development choices open to the Commissioners and also provides more incentive for use of this land use plan as a decision guide over the next decade.

Type of Development	Agree-Strongly Agree	Neutral	Disagree-Strongly Disagree
Environmental Protection	74%	14%	12%
More Industry to Supplement Agriculture	64%	21%	15%
Tourism	52%	-0-	48%
Preservation of Historic Properties	83%	13%	4%
Agricultural Development	72%	12%	16%
Commercial Development	44%	2%	54%
Natural Resource/Wildlife Protection	85%	14%	1%

Respondents were also supportive of development of second or recreational homes.

Before Camden County can undertake any of the more urban type of development, it must realize that it has a larger problem in stimulating and sustaining development than in directing it. Thus, the impetus of much of the economic and community development policies which follows is directed at generating appropriate and desired growth in an orderly pattern. That pattern is shown on the Land Classification Map in Section III.

As an overall statement of intent, the County Commissioners adopted the following general goal for economic and community development:

Goal: To achieve desired levels, types, and patterns of economic and community development which are consistent with the historic character of the County, raise local employment levels, and otherwise contribute to the local economic base, so as to implement the Land Classification Map.

Below, alternative policies for the categories outlined in the CAMA regulations are presented with a choice of policy (stated as an objective for that particular type of land use). Implementation strategies which the County Commissioners selected are presented as well.

2. Type and Location of Industry.

The citizens survey showed considerable interest in attracting industry to the County, primarily for purposes of local employment. Currently, the forestation resources and potentially the peat concentration in the northern part of the County provide a basis for industrial recruitment. Care, however, must be applied to the type and location of whatever industry is attracted since the capacity to provide water and poor soils suitability of certain areas restrict the construction and operation of a large scale industry. Thus, the small scale operations which are non-polluting in nature and which could employ local people are desirable to the County to the extent that such location and operation does not take prime agricultural land out of production.

Alternative policies considered issues that attract industries which are light and clean and which would hire local people. This effort includes obtaining assistance from the Albemarle Regional Planning and Development Commission for industrial recruitment approaching companies already operating in the County (such as the Weyerhaeuser Company) to discuss options for establishing processing plants (saw mills) in the County instead of carrying logs to distant mills, and using state industry-locating efforts to reach the broader industrial population.

Objective:

To encourage location of light industry within Camden County, provided certain performance standards are met, and that industry is located near existing communities, and does not use prime agricultural land.

Implementation Strategies.

Prepare a list of properties that are available and suitable for commercial or industrial development. These properties should be tested for percolation and soil characteristics and re-zoned multi-use if necessary and promoted as a development site. These properties would not be taxed as such until they are purchased for that use.

A brochure should be prepared to promote sites that meet percolation requirements, zoning requirements, and are available for development.

Consider the development of performance standards for future industrial development. Such standards should include the definitions of "light industry" with respect to permitted levels of noise, vibration, pollution, traffic, and demand upon community facilities and county services.

Become a part of a regional development strategy, through the Albemarle Regional Planning and Development Council or other organizations. A key part of this strategy would be to organize a countylevel Economic and Industrial Development Commission to work on behalf of the County Commissioners. This group (5 member citizens group appointed by the County Commissioners) will work to: assist in making county information and development needs known to the regional organization; identify and consult with state agency industry at location activities; consider approaches used to successfully attract industry to rural areas; investigate local capital sources for industry; determine what kinds of assistance personnel, services, utilities, tax incentives and other forms of support the County (or local communities) would be willing to offer; investigate the benefits to the County of issuing local industrial revenue bonds to attract industry; use the land use plan update as a basis for preparing a resource inventory for prospective industries and approach industries which make use of the agricultural, mineral, and forestry potential of the County; work with local property owners to encourage better availability of land for appropriate industrial development; and carry out other requested assignments on behalf of the County Commissioners.

3. Local Commitment to Providing Services for Development.

The County has an operating budget which may not support additional development. Thus, one primary element of any development strategy is to undertake selective financing strategies that strengthen the County's development capacity.

Currently, the County's support takes the form of providing staff who assist developers in complying with local, state, and federal regulations regarding projects and contributing to various planning projects which provide a basis for locational and other development decisions.

Alternative policies considered for development of the County's commitment for services to development included: additional grantsmanship; lending financial support to the South Mills Water Association to enable service to a larger portion of the County and the areas chosen below.

Objective: To provide significant forms of local commitment toward providing services to development.

Implementation Strategies.

To lend support (other than financial) to the South Mills Water Association in its effort to obtain water required to meet existing demand for expanded water system. Also, to investigate the potential benefits to the County of investing minimal tax funds in the system.

To acquire voluntary technical assistance from NRCD in preparation of an initial capital improvements budget to explore the feasibility of increasing county support to selected development.

Identify particular state and federal programs which pursue the community and economic development policies herein articulated and develop action strategies for implementing those programs in Camden County. This selection will be the responsibility of the Commissioners.

Engage in a program to secure selective state and federal assistance. The County anticipates that limited County financial assistance will be available for support, mainly in the form of local cash and in-kind match for high priority programs only.

In general, to support other state and federal programs including programs required by law.

Work toward establishing a "partnership" with private land owners in those areas which are compatible with the development goals of the County.

4. Type of "Urban" Growth Pattern Desired.

The Land Classification Map in Section III visually presents the pattern of development desired by the County. At the base of that pattern is concern for growth within existing population clusters.

The County Commissioners discussed several alternative policies regarding residential, commercial and industrial, cultural and institutional, and agricultural and forestry development patterns. These are summarized under each specific heading below, with chosen policies and implementation strategies.

a. Residential Development Pattern.

Alternatives considered include disregard for location of residence with regard to whether they are year-round or permanent; leaving the development of new subdivisions to the market; undertaking a strong residential development program; and encouraging residential development in a pattern similar to that now in the county.

Objective:

To develop permanent residences in accordance with the zoning ordinance and to develop summer and waterfront recreational homes in areas shown on the Land Classification Map as "community" (and to a lesser extent, "rural residential").

Implementation Strategies.

Conduct a housing market analysis based upon the completed housing conditions survey, demographic data, and a measure for effective housing demand.

Revise Zoning Ordinance separately to encourage the development of private multi-family housing by providing zones where more intensive development can occur.

Revise Zoning Map to more selectively permit mobile homes on individual lots with respect to commercial and other land uses.

b. Commercial Development Pattern.

Overall, the major theme for commercial development was the desire to keep the communities small and have shops and accommodations to support the tourists and hopefully, the growing number of county residents.

Commercial development is to be encouraged in proximity to where it now exists (see Existing Land Use Map, pages 68 to 81). Such a development pattern is reflected in the Land Classification Map as "transition" and "community" (page 54).

Alternative policies the Commissioners discussed with relation to commercial patterns included, avoiding strip development, and promoting commercial development in the areas designated on the Land Classification Map.

Objective:

To promote commercial development that is designed to directly relate to other commercial activities, and in the pattern prescribed in the Land Classification Map.

Implementation Strategies.

Contact the Department of Highways and local members of the North Carolina Transportation Board to express the strong desires of the County Commissioners for changing Hwy. 17 from "limited access" to general (unlimited) access, so as to prevent "economic by-pass" of South Mills.

See "e" below.

c. Cultural, Institutional, and Recreational Development Pattern.

As noted in the survey of existing land use, the pattern now exhibited by cultural and institutional development is more or less compatible with surrounding land uses. Given this, there are recreational and natural resource areas which can provide a broader base to the County's economy and amplify Camden County as an attractive natural recreational area. The County, then, favors a pattern of cultural, institutional and recreational development which protects natural resources yet enhances the County.

Alternative policies considered for location of cultural, historic, and recreational development included: work more closely with the state and others to enhance such uses within the County; develop better communication with owners to convey the County's goals related to cultural, institutional and recreational properties; and effectively use the powers of county government to promote orderly development more consistent with surrounding land uses.

Objective:

To develop the cultural and institutional land uses in accordance with the Land Classification Map, in the categories designated "transition" and "community", and otherwise protect the existing pattern of such development elsewhere.

Implementation Strategies.

To inventory potential sites for public recreation and review possible sources of State and Federal funds for development of recreation facilities.

To request the NC Wildlife Resources Commission to acquire and develop a public access area(s) for boat launching in Camden County.

For other cultural and institutional use patterns, see "e" below.

d. Agricultural and Forestry Development Pattern.

As mentioned under the Resource Protection policy discussion, page 18, agriculture has long been a major part of the County's economy. The pattern of this type of land use is of more and more concern to the County Commissioners as external pressures, such as Hwy. 17 North, and potential mineral production, as well as economic and community development patterns vie for agricultural land, albeit at a slow rate. So far, the chosen pattern of agricultural use has been enforced by reluctance to sell and the County's Zoning Ordinance.

The Land Classification Map shows the chosen pattern of rural and forestry development as "rural", which sets aside these areas for production purposes.

Alternative policies regarding agricultural and forestry patterns include: leaving the sale of such properties to individual owners regardless of economic impact to the community; development of subdivision regulations and undertaking a developer recruitment campaign to stimulate orderly development on available tracts now used as agricultural; and using the County Commissioners powers to effectuate better patterns of such uses.

Objective:

To concentrate agricultural and forestry uses outside the existing Town limits as shown on the Land Classification Map.

Implementation Strategies. (See "e" below).

e. Implementation Strategies for the Commercial, Cultural, and Agricultural/Forestry Objectives Above.

Revise Zoning Ordinance and the subdivision regulations to better implement the Land Classification Map.

Investigate the use of positive tax incentives or capital investments by the County to help foster development in the chosen pattern (Land Classification Map).

5. Redevelopment of Developed Areas.

The overall strategy of redeveloping the developed (clustered) areas of the County has been articulated above. This section, then, will concentrate upon recommendations for improving the commercial and residential fiber of already developed areas.

The County Commissioners realize that Camden's vast shoreline renders the County attractive for scattered development in new areas, often at the expense of the older areas. Additionally, external pressures, like those associated with Hwy. 17 which by-passes South Mills to the west can drain commercial activity which could help foster redevelopment of communities.

Thus, the Commissioners face the pressures, plus the recent drastic cutbacks in federal assistance for redevelopment (community development). These cutbacks are particularly related to building infrastructure and providing operating capital to small businesses. Additionally, the County's residential pattern and its relatively good housing stock, has hurt its chances for qualifying for federal rehabilitation funds to improve housing in its rural areas.

Thus, in line with the chosen "cluster development policy" and the Land Classification Map (transition and community areas) the Camden County Development Advisory Committee considered the following alternative policies for stimulating development in the already developed sections of the County: increased grantsmanship; improved zoning and subdivision regulations; and continuing the Camden County Development Advisory Committee to assist in attracting development to already developed areas (see page 54).

Objective:

To encourage redevelopment of existing communities, primarily those designated as "transition" and "community", especially regarding commercial and residential development.

Implementation Strategies.

Become part of a regional development effort, and place special attention on redevelopment of selected areas.

Obtain technical assistance in working with existing businesses toward acquiring necessary operating capital and conducting business planning.

Undertake selective measures to improve the housing stock, particularly in already developed communities, so as to provide a firm base for location of other types of development. Strategies should include a (voluntary) demolition strategy, coupled with a housing rehabilitation program.

Designate areas that are transition and community as "County Revitalization Areas" and conduct special revitalization efforts on a prioritized basis. Strategies could include a community fund drive and participation in federal and state programs aimed at revitalization of developed areas.

Contact the Department of Highways and local members of the N.C. Transportation Board to express the strong desires of the County Commissioners for changing Hwy. 17 from "limited access" to general (unlimited) access, so as to prevent "economic by-pass" of South Mills.

6. Commitment to State and Federal Programs.

Section IV shows a list of state and federal programs which impact Camden County and contribute to its character. Currently, several of the programs are effectively protecting Areas of Environmental Concern.

Camden County has supported such programs which it feels necessary and cost effective to support.

Alternatives considered to enhance the County's commitment to state and federal programs include: initiating a letter campaign to all state and federal agencies listed in this document, and others identified as need arises, to open communication and inform them of Camden's needs and policies; and attainment of technical assistance to address those needs.

Objective:

To selectively support state and federal programs related to Camden County.

Implementation Strategies.

Engage in a selective grantsmanship program to implement selective state and federal programs, through technical assistance at the regional level.

7. Channel Maintenance and Beach Nourishment.

Camden County regards the matter of channel maintenance as being out of its jurisdiction and therefore has no policy regarding it in this document. It does, however, support the Coast Guard and other bodies in their responsibility for maintaining the channels of the Pasquotank and North River, and the Corp of Engineers in maintaining the lock of the Dismal Swamp Canal. The County of course, has no beaches other than river's edge, which is regulated under CAMA for permit purposes.

8. Energy Facility Siting and Development.

Currently, there are no energy facilities within the County. The Board and County Commissioners express desires that none be developed which would have detrimental impacts on the estuary or agricultural land uses.

The County recognizes the necessity for the development of facilities for the production of alternative fuels, but wishes to discourage siting of large facilities near existing clusters of development.

Objective:

To achieve appropriate levels of energy facilities.

Implementation Strategies.

Revise the Zoning Ordinance to require a special use permit to construct any energy production facility in any zone.

Undertake a feasibility study, in establishing a Gasohol Production Co-op which would purchase corn from local farmers for production of this energy efficient alternative fuel. Acquire technical assistance and solicit the support of state and federal agencies in acquiring funds. If necessary, rezone areas of the County industrial in order to accommodate the attraction and development of the Co-op. Develop fiscal support for the co-ops development through not taxing such land as industrial until the co-op has begun operation.

9. Waterfront Access.

There is private boat access to the Pasquotank River, and several roads serve as public access, onto the waters edge. The County Commissioners felt that this is inadequate, but that the County has insufficient funds to develop public access facilities. The Board chose to forego the responsibility and continuing expense of upkeep, police, and spillover effects of parking, etc.

The County Commissioners encourage the development of private or public access at these sites: Old Shipyard Road, Neck Road, and at the end of Hwy. 343.

E. Continuing Public Participation Policies.

In accordance with the CAMA guidelines for land use planning, the following discussion outlines the means by which public participation in planning matters is to be conducted in the planning process; the means to be used for public education on planning issues, and the means to be used for continuing public participation. First, a brief description of the methods used to develop this CAMA Land Use Plan will be discussed as the foundation for future citizen participation efforts.

Camden County has an active Board of Commissioners which contributes considerably to the representative nature of planning and planning decisions.

The County, through its history of planning (see local plans and policies, page 94) and concern for citizen participation, led the Commissioners to retain technical assistance for preparation of this plan from a firm with a strong citizen participation background. Through recommendations from Planning and Design Associates, P.A., the Board conducted a random sample survey (see Section IV for survey questionnaire), to property owners in the County; held monthly meetings which were announced in advance; and conducted interviews with several citizens related to planning issues during the process.

During the preparation of this document, the Camden County Development Advisory Committee was clear in its desire to continue close contact with its citizenry. The Committee realizes that such involvement is important in both the development and enforcement of land use policies so that the spirit of community is enhanced as the County grows physically and economically. Issues discussed included these and other purposes of participation in land use planning; definition of varying interests among publics; representative bodies and responsibilities; and communication methods.

Alternatives discussed with regard to these issues included: limiting participation to selected committees or boards appointed to represent the County; publishing required legal notices for public hearings; establishing ad hoc citizen committees of the Board as need arises; and conducting an educational campaign encouraging participation at monthly meetings.

Goal: To achieve meaningful participation in land-use and related planning matters in the County.

Objective 1:

For participation itself: to provide opportunities for participation in the land use planning process by residents of the County individually and in representative groups.

Implementation Strategies.

Revise the Zoning Ordinance so as to send written notice to neighbors prior to a public hearing on amendments of the Zoning Map and to post notification signs on property.

Send citizen opinion questionnaires to residents at least every five years to gauge public opinion and how this opinion has changed prior to the update of the Land Use Plan.

Hold a semi-annual meeting of the Board to evaluate the Land Use Plan and its implementation. Prior to that meeting, have news articles regarding meeting and specific issues to generate public interest.

Objective 2:

To encourage active participation in land use discussion by all sectors of the population including all economic, social, cultural, and ethnic groups.

Implementation Strategies.

Develop a roster of civic organizations and key individuals to be notified of public meetings regarding land use issues, and request that members of these organizations be notified.

Publicize notices of meetings in the local newspaper preceded by feature articles on specific issues to be discussed and invite all interested citizens to attend.

Objective 3:

To educate the citizens of the County and its planning area about the issues facing the area regarding matters of resource protection, resource production, community and economic development, special issues and ways in which citizens may participate in the County's planning process.

Implementation Strategies.

Prepare public information brochures regarding:

CAMA Land Use Plan and its implementation process for distribution in annual tax bills.

Prepare public information and education programs for presentation to civic groups, churches, and school classes to inform the public about the CAMA Land Use planning program and to encourage active participation in the process.

Prepare press release for local newspaper following selected Board meetings in cases when no member of the press had been present.

Prepare educational news releases on the planning program in the County explaining the issues to be considered and decisions pending.

Hold workshops for residents of the County and the surrounding planning area with technical assistance to educate citizens about the planning process and other facets of the CAMA program.

F. Other Specific Issues That Must be Addressed in the Camden Land Use Plan.

"Attachment B" of the contract between the State of North Carolina and the County of Camden stipulates that the special issues of mobile homes and second homes/waterfront development be addressed in this plan.

1. Mobile Homes.

Mobile homes, in Camden County, have posed some concern for overall development of the County, in that their taxable value is low and depreciation is so rapid that they contribute little to the County's ability to support other forms of development; they are still stigmatized, after years of the housing industry's failure to produce a more responsible form of less expensive and convenient housing; and are crowding the roadside now in choice areas of commercial development. The Commissioners have developed a zoning ordinance which prevents overly concentrating mobile homes into "parks", and otherwise, works to promote orderly development where mobile homes are needed.

Alternatives regarding mobile home development in the County include: doing nothing; prohibiting them in areas designated best for commercial use (even along rural highways); and the policies below:

Goal: To accept the mobile home as a reasonable form of standard housing, and make it's use in the County as appropriate as possible.

Objective:

To control factors leading to extremely rapid growth and unplanned growth of mobile home development.

Implementation Strategies.

Provide for mobile home development areas in the County (separation of residential areas will help prevent conventional home devaluation).

Provide for mobile home development in subdivision regulations and zoning ordinances which better implement plan recommendations.

2. Second Homes/Waterfront Development.

The issue of impending ecological damage in Camden Point Shores and the growth of other areas such as Whitehall Shores has stimulated concern on the part of the Office of Coastal Management regarding second homes/waterfront development in Camden County.

The policy regarding stimulating development in already developed areas (clusters) is emphasized again here, since it pertains particularly to second homes/waterfront development. This is important since the excessive amount of eroding shoreline and previous encroachment upon wooded swamp (Camden Point Shores) is ample warning of problems from poorly planned development.

Alternatives considered in response to this issue included permitting such development anywhere on the shoreline, permitting it only in the areas designated as "community" on the Land Classification Map, and leaving its regulation to the State, since all shoreline development is either on the shores of public trust waters or more desirably, on estuarine shorelines.

Goal: To control adverse environmental impacts of second home/waterfront development.

Objective:

To direct such development toward existing concentrations of such development.

Implementation Strategies.

Revise the existing zoning ordinance to promote this concentration.

Pay especially close attention to the CAMA regulations in granting local permits on the estuarine shoreline of the Pasquotank River.

Conduct a study of flood-plains and establish development districts and construction criteria for second/recreational houses in the flood-plains.

G. Consistency with Land Use Ordinances and CAMA Improvement Plans and Budgets.

In accordance with CAMA regulations, the Zoning Ordinance of the County of Camden has been modified to make it consistent with the land use planning regulations and the Coastal Area Management Act regarding areas of environmental concern. Additionally, they are scheduled for update to implement this Land Use Plan as reflected in the foregoing policy statements and as illustrated in the Land Classification Map.

H. Related Plans, Policies, and Regulations.

As mentioned in the foregoing policy discussion section, the development of the Land Classification Map has been undertaken after thorough review of local, county, state, and federal plans impacting the County.

I. Intergovernmental Coordination and Implementation.

The preceding discussion of policies and the Land Classification Map are to serve as the basic tools for coordinating numerous policies, standards, regulations, and other governmental activities at the local, state, and federal levels.

Because of the level of discussion during the development of the Land Classification Map and related policy statements, a better framework has been established for budgeting, planning, and provision of community services; better coordination of regulatory and promotional policies; and better decisions for Camden County and Currituck County.

J. Public Participation.

As noted earlier, the County of Camden used its Advisory Committee, public notice of monthly, regularly scheduled meetings, a citizen survey, and interviews with local officials as its participation method. In this manner, a wide cross-section of citizens was actively solicited and considered, and became a fundamental element in the development of the planning activities, its adoption (forthcoming) will be an important part of future amendments to the plan and moreover, its successful implementation.

III. LAND CLASSIFICATION.

In accordance with the guidelines for land use planning (15 NCAC 7B, Section .0200), and based on consideration of the citizens survey, available data, work sessions with the Advisory Committee and its consultants, and consideration of the policy statements developed above, the 1976 Land Classification Map and the 1978 Sketch Development Plan (Map), this section presents the land classification system developed for the County of Camden. By delineating land classes on the following map, the County and its citizens have specified those areas where certain policies (local, state, and federal) will apply.

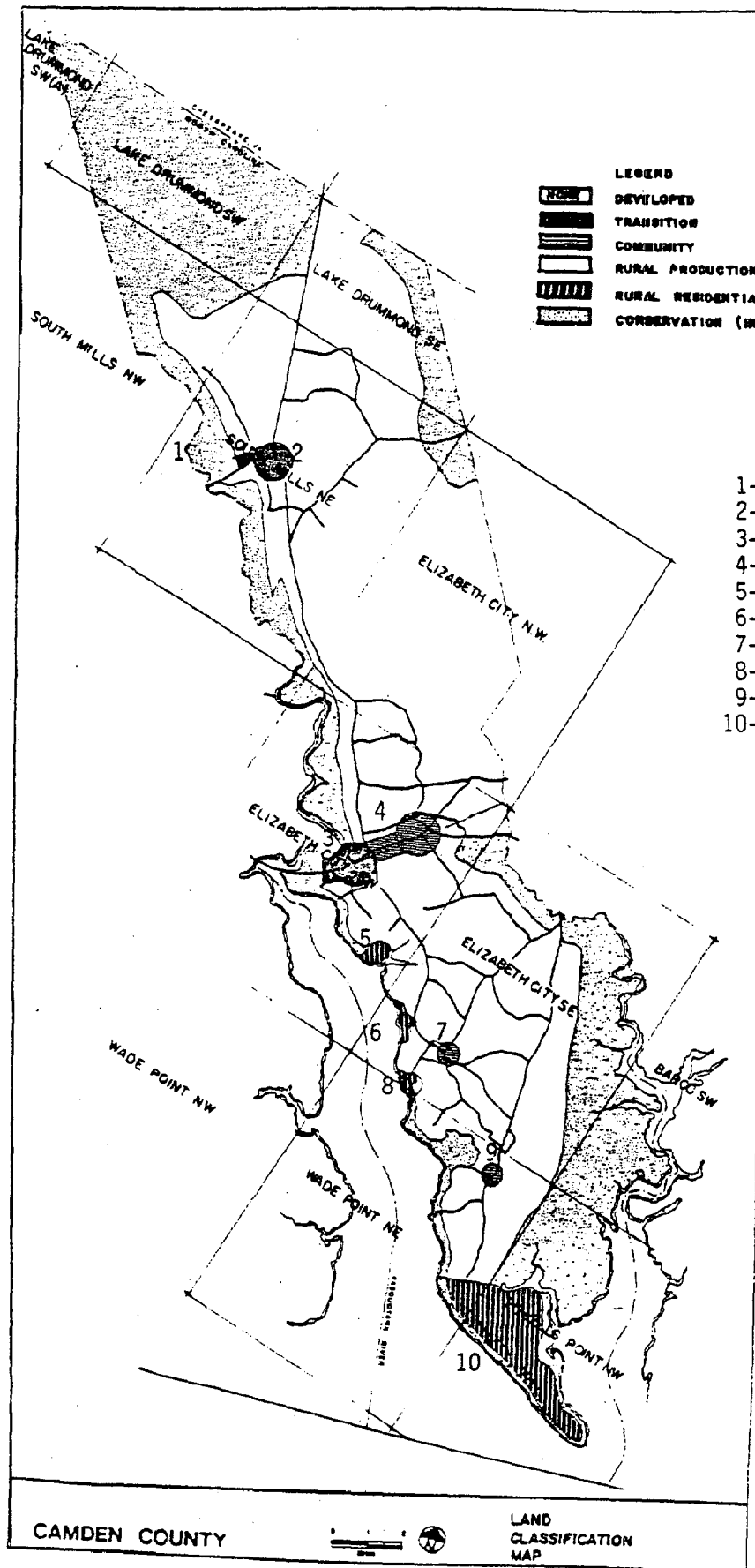
To this extent, the land classification provides a frame-work to be used by local governments to identify the future use of all lands in its planning area. The designation of land classes allows the Board to illustrate its policy statements as to where and to what density they want growth to occur and where they want to conserve natural and cultural resources by guiding growth.

While the areas shown on this map do designate areas of the "planning district" which are best suited for particular uses, it must be remembered that land classification is merely a visual reference to help implement policies and not a strict regulatory mechanism.

The CAMA land classification system includes five broad classes: developed; transition; community; rural; and conservation.

In the County of Camden, the classes of "transition", "community", and "conservation" readily apply as defined in the CAMA guidelines. The definition of rural has been modified and will herein be referred to as "rural-residential" and "rural-production". There are no lands appropriately categorized as "developed" within the County.

It is to the detailed discussion of the land classification that we now turn.



A. Developed.

The purpose of the developed class is to provide for continued intensive development and redevelopment of existing cities. Areas to be classified "developed" include lands currently developed for urban purposes at or approaching a density of 500 dwellings per square mile with usual municipal or public services including at least public water, sewer, recreational facilities, police and fire protection.

Since there are no qualifying areas in Camden County, no areas are classified as "developed" on the Land Classification Map.

B. Transition.

The purpose of the transition class is to provide for further intensive urban development within the next ten years on lands which are most suitable and that will be scheduled for provision of necessary public utilities and services. According to the CAMA guidelines, lands classified as transition include lands currently having urban services and other lands necessary to accommodate the urban population and economic growth anticipated within the planning jurisdiction over the next ten years.

As shown on the Land Classification Map, two areas have been designated as transition (South Mills (west) and Camden (west)).

This means that these two areas are especially targeted for public investment should the County undertake such planning or conduct grantsmanship for such purposes. In other words, they are priority for water, sewer, streets, and other development.

In accordance with the population projections showing limited future demand in the planning decade, these areas are designated "transition" as an inducement for future growth, rather than a limitation upon its density and nature.

C. Community.

The purpose of designating areas in a community class is to provide for clustered land development to help meet housing, shopping, employment, and public service needs within the rural areas of the planning district. As outlined in the CAMA guidelines, such areas usually refer to small clusters of rural development not requiring municipal sewer service and clusters which usually occur at cross-roads.

As seen on the Land Classification Map, the areas of Camden (east)-Belcross, Shiloh, and Old Trap are designated as "Community". As such, they represent the essence of the County's foremost development pattern policy, that of clustering development where it has traditionally been.

D. Rural.

The purpose of the rural class, as defined by CAMA, is to provide for agriculture, and forest management, mineral extractions and other low intensity uses.

As reflected in the foregoing policy section (II), Camden has resource concentrations of agricultural, forestation, and minerals (sand, gravel, and peat) which are developable or potentially so.

For Camden Point Shores, Whitehall Shores, Taylor's Beach, and Texaco Beach the modified category of "rural-residential" has been designated by the County Commissioners to reflect that it should develop significantly slower and not in a mixed land use pattern as should Old Trap, Shiloh, and Camden East-Belcross. This is differentiated from the 1976 Land Classification Map.

Through the use of this modified category, the Commissioners wish to emphasize further, for Camden Point Shores, that this area, regardless of the fact that it is already platted and much of it is sold, should develop at "low intensity"; "urban services are not to be required, and the natural resources are not to be permanently impaired" (15 NCAC 7H, pp. 7-14).

E. Conservation.

The purpose of the conservation class is to provide for effective long term management of significant limited or irreplaceable areas. This management is necessary in the County along the estuarine shorelines of the Pasquotank and North Rivers and in all surface waters. As shown on the Land Classification Map, this designation is interrupted near the residential (rural-residential) areas of Whitehall Shores, Taylor's Beach, and Texaco Beach. The County Board of Commissioners wish that these already developed areas be monitored closely so as to protect the fragile nature of the estuarine waters and shoreline. In this regard, the foregoing policies show that these areas should not be identified as transition lands in the future.

IV. INFORMATION BASE FOR POLICY DISCUSSION.

The following section presents in more detail the information which the policy issue summaries were developed and upon which the policy discussion with the Camden County Board of Commissioners was based. It first describes the manner in which the information base was established, and then presents data and conclusions regarding present conditions and economy; existing land use; current plans, policies and regulations; constraints to development, including land suitability and capacity of community facilities; and estimated demand.

A. Establishment of the Information Base.

1. Manner of Data Assembly and Conclusions.

Data for the Camden County Land Use Plan was collected through a combined effort of the Communities, the county's residents, and Planning and Design Associates, P.A., the County's consultant. This section outlines the general methods of collection, with details discussed under the headings below.

Data assembly began with an assessment of the County's ordinances, special studies regarding water and wastewater systems, and minutes of County Commissioner's meetings regarding planning issues. The County's previous and current land use plans, plus other special studies (housing element, soils study, and state plans) were reviewed for pertinent information about the County. Interviews with local employees provided information about the County's budget and its history.

The consultants made several data collection trips to state and federal government offices in Elizabeth City, Washington, N.C., and Raleigh to obtain published data. Additional information was collected through interviews and phone calls with officials at every level.

Since much of the information was not published or readily accessible, the County Commissioners chose to conduct a citizen survey (presented in the Appendix), which not only provided data but also became a critical element in the citizen participation process. A random sample of the County's tax records provided addresses for residents of the County. The County's in-kind match was spent on this effort both in postage and in hours of time contributed in responding and assessing the questionnaire. Support of area citizens through responding to the survey made data collection a fundamental building block for continued participation in the process and implementation of the finished product.

Information regarding existing land use, housing conditions, fragile areas and hazard areas was collected through windshield surveys by the consultants and students from the Department of City and Regional Planning at Chapel Hill. Aerial photos, topographic maps and the maps prepared for the 1976 Land Use Plan served as bases to begin work. All maps in the current plan were constructed anew to provide more accurate information regarding fragile areas, hazard areas, and existing land use.

Conclusion: For Camden County, like other very small communities, much of the information required by the CAMA guidelines for Land Use Planning is not published. This necessitates considerable primary data collection in the form of interviews and on-site surveys. While these are desirable, and granted they contribute to the participatory process, the small budgets allotted to small places are seldom adequate to support such research.

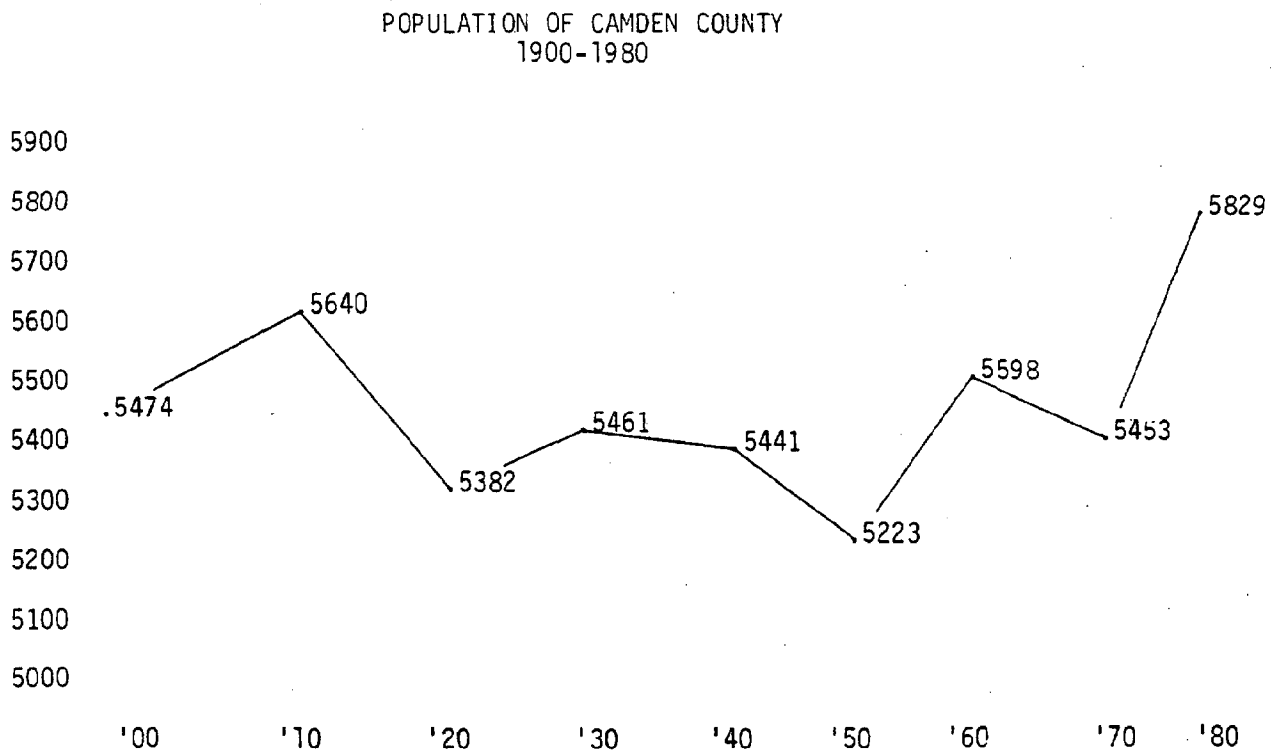
B. Population and Economy.

1. Population.

According to the Advance Counts from the 1980 Census, Camden County has a population of 5,829, 67.5% of whom are white and 32.5% are non-white. The state of North Carolina is 75.8% white and 24.2% non-white.

Camden County grew 6.9% between 1970 and 1980, while the state grew 15.5%. Camden's pattern represents a reversal of the slight population decrease (0.4%) since 1900. This trend reflects the change from 11.95% outmigration in the 1960's to 2.74% immigration in the 1970's.

The table below shows the fluctuating patterns in population of the County since 1900. Presumably, these peaks and valleys are due to major world events related to naval and other industrial employment, World War I, World War II and the subsequent baby-boom, outmigration of youth in the 1960's, and reversal of outmigration in the 1970's as people over 45 returned to smaller communities to live.



1900-1970 Population Estimates
Source: 1980 U.S. Bureau of the Census, Advance Counts.

As noted in the 1976 Land Use Plan, there is no appreciable influx of seasonal population in Camden County. The number of summer residents in recreational homes has not been estimated.

As shown below, the population is distributed almost evenly among the County's three Townships. South Mills is traditionally a bit larger. In the 1960's, there was a small shift from South Mills and Shiloh to Courthouse. This shift continued into the 1970's, when the population of Courthouse Township grew 10.7%; South Mills grew 7.1%; and Shiloh grew 1.0%.

POPULATION BY TOWNSHIP
1950-1980

	<u>South Mills</u>	
1950	1,904	(36.5%)
1960	2,015	(36.0%)
1970	1,929	(35.4%)
1980	2,066	(35.4%)
	<u>Courthouse</u>	
1950	1,685	(32.2%)
1960	1,858	(33.2%)
1970	1,848	(33.9%)
1980	2,046	(35.1%)
	<u>Shiloh</u>	
1950	1,634	(31.3%)
1960	1,725	(30.8%)
1970	1,676	(30.7%)
1980	1,717	(29.5%)

Total County Population: 1950 - 5,223, 1960 - 5,598, 1970 - 5,453, 1980 - 5,829

Source: 1950-70 US Bureau of Census
1980 Demographic Research, Division of State
Budget and Management
NC Dept. of Administration
Prepared: May, 1980

This population is classified as 100% rural, since Camden has no incorporated places. In fact, in 1977, there were only four (4) other counties in the state more sparsely populated (Statistical Abstract, Fourth Edition, 1979, p. 13).

In 1970 92% of Camden's population was classified as rural non-farm and 8% as farm. Presumably, with the shift from the farming township of Shiloh to the less farming township of Courthouse, the population is slightly more non-farm today. Forthcoming Census counts will test this assumption. The non-farm distribution of the population in 1970 represented a dramatic shift to non-farm (+22.5%) and a dramatic loss of farm population (-71%) since 1960. (Stat. Abst., p. 15).

In 1970 the population averaged 3.4 persons per household and was evenly spread throughout the County (South Mills, 3.4; Courthouse, 3.5; and Shiloh, 3.2). During the 1970's, household size declined by 12% countywide, from 3.4 to 3.0 persons. Similarly, the family size was slightly reduced in other townships. In Shiloh it was below 3 persons per unit (2.98).

Between 1960 and 1970, the number of white households increased 16.7%, while the non-white households dropped by 3.6%. As in the rest of North Carolina, the average household size for both groups dropped. Nevertheless, the average household size in Camden County was larger for non-whites (4.4 vs. 3.9 for the state) and smaller for whites (3.0 vs. 3.1 for the state).

Planning Region R households increased from 25,610 (1960) to 28,786 (1970) to 50,477 in 1980. Most of this has occurred among the white population (17.1% more during 1970-80 than non-white). The Region R increase in households was 21.1% greater than that of Camden County during the past decade.

As shown below, Camden County has sustained increases in all population groups over age 15 since 1960. During this period the downward trend in the 35 to 49 age group reversed, but the downward trend in the 0 to 14 age group continued. Camden has fewer children today than in 1950. Between 1970 and 1980 the 15 to 24 age group increased more than any other.

CAMDEN COUNTY AGE DISTRIBUTION: 1950-1980

	1950	1960	1970	1980
0-14	1,740 (33.3%)	2,002 (35.8%)	1,706 (31.3%)	1,399 (23.9%)
15-24	793 (15.2%)	782 (14.0%)	850 (15.6%)	1,805 (18.5%)
25-34	686 (13.1%)	595 (10.6%)	592 (10.9%)	804 (13.7%)
35-49	918 (17.6%)	950 (17.0%)	875 (16.0%)	959 (16.4%)
50-64	699 (13.4%)	781 (14.0%)	844 (15.5%)	910 (15.5%)
65 +	381 (7.3%)	488 (8.7%)	586 (10.7%)	698 (11.9%)
TOTAL	5,223 (100%)	5,598 (100%)	5,453 (100%)	*5,855 (100%)

Source: U.S. Bureau of the Census (1950 - 1970)

*State of North Carolina, Office of State Budget and Management, (1980).

2. Economy.

The economy of Camden County involves a variety of factors: employment, income, and production. This analysis looks at Camden County's economy from three perspectives:

Sector Analysis-- The economy of Camden has been divided into seven sectors. This analysis will examine each sector and the trends that have developed in each sector from 1973 to 1978.

Work Force (Employment)-- The current employment situation is examined along with the developing trend in the 1973 to 1978 period.

Income-- Per capita income and overall income trends are reviewed.

a. Sector Analysis

For this analysis the Camden County economy has been divided into seven sectors:

Commuters (residents commuting outside of Camden County for work), farmers, non-farm/non-manufacturing, manufacturing located in County, government employment, government transfer payments and rent, interest dividends.

(1) Commuters.

The dominant income producing sector of the Camden County economy is the Camden residents that work outside of the County. These commuting workers account for 65% of all the wage and salary disbursements acquired by Camden County residents and 36.92% of the total income in the County. More than 90% of the workers are employed in Pasquotank County, North Carolina and Norfolk, Virginia. This commuting labor force is Camden County's leading export. Commuting workers' gross income in 1973 was in excess of \$7.7 million and increased to over \$11.7 million in 1978, a 52% increase. Forty-two (42) percent of the Camden County labor force commutes to adjacent counties to work.

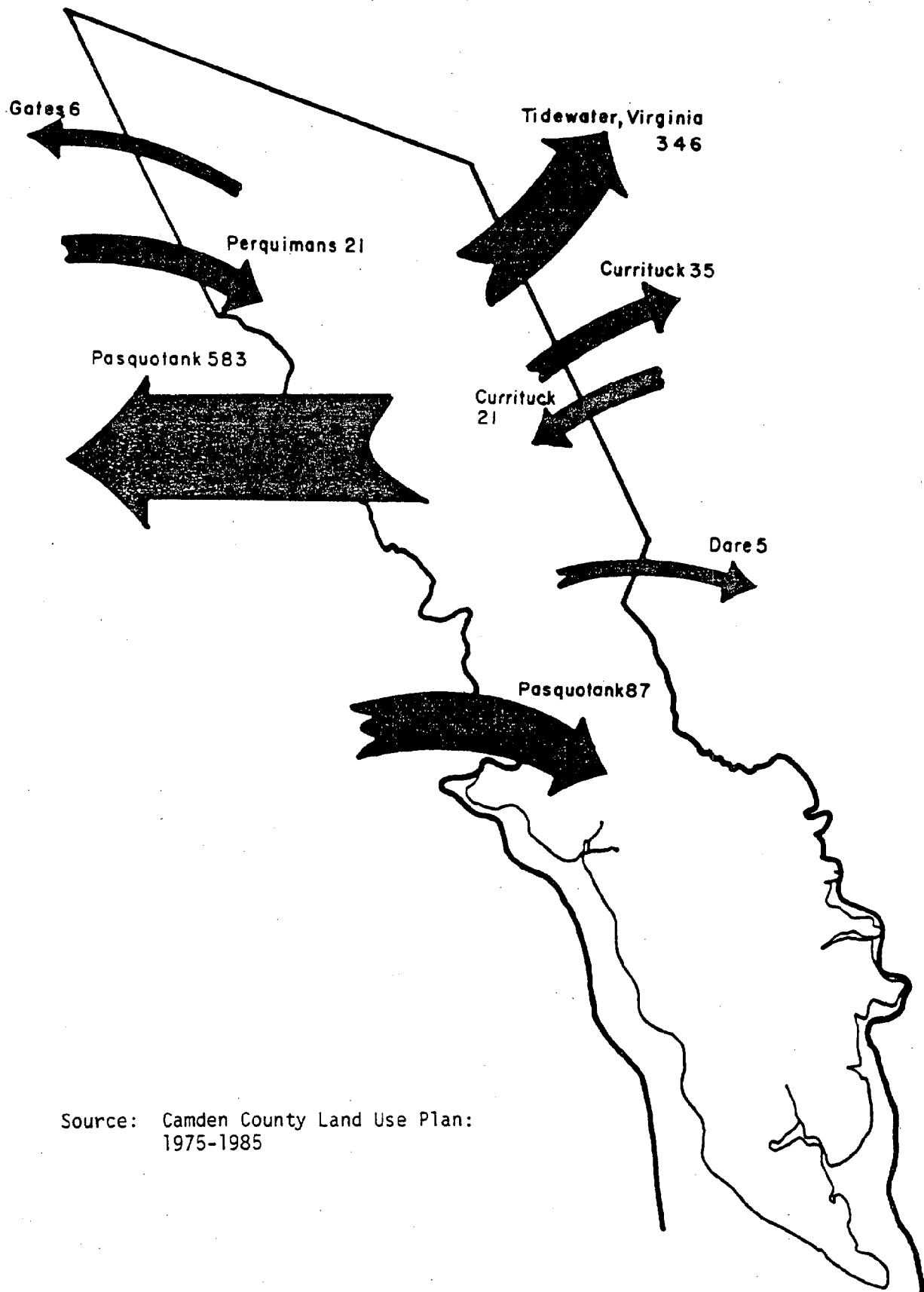
(2) Farmers.

Farming has historically been one of the primary contributors to the Camden economy. Land used in crop production has increased from 37,782 acres in 1974 to 46,801 in 1978, 9,019 acres (14.09 square miles) in only four years. In the latter year, land used in crops represented 30% of the total land area in Camden County.

While farming has always been a leading export item, its income production cannot match that of the commuting labor force. In 1973 and 1974, farm income reached an all-time high. This was primarily due to the extensive grain shipments to the Soviet Union from the United States.

COMMUTING PATTERN 1970 CAMDEN COUNTY

63



Source: Camden County Land Use Plan:
1975-1985

According to U.S. Census estimates, both the market value of farm products and the actual farm income decreased between 1974 and 1978. Personal income from farming dropped from \$7,115,000 to \$3,715,000, at a time when the acreage in crop production increased 24%. Market value of crops, including forestry products, decreased less, \$15.2 million to \$14.6 million. Overall, farm income declined in its share of total Camden County income. In 1973 it represented 27.8%; by 1978, it had dropped to 11.7%.*

(3) Non-Farm/Non-Manufacturing.

Non-farm/non-manufacturing employment** and income increased dramatically during the five year period from 1973 to 1978. Total income produced in this sector increased by 73.9% from \$2,591,000 to \$4,507,000 in 1978. Proprietors' income increased from \$1,185,000 to \$1,389,000, and the non-farming/non-manufacturing laborers' income increased from \$1,406,000 to \$3,118,000. This sector also gained 139 new proprietors and 123 additional employees. The most notable increases in employment were in the retail trades, which more than doubled from just 60 employees in 1973 to 130 in 1978. The construction of a new shopping center was a primary factor in the increase. Retail sales also increased during this period. For the nine-year period from 1970 to 1979, retail sales in Camden County increased from just over \$3 million in 1970 to in excess of \$10 million in 1979.

(4) Manufacturing.

There are no major industrial employers in Camden County; it has only a few small forest-related firms. Employment in these industries has fluctuated from 40 to 60 persons for the past several years. Present employment is 50.

(5) Government Employment.

State, local, and federal government employees account for essentially the same proportion of the County's income in 1978 as they did in 1973. The total number of jobs in this sector has increased from 260 to 290. This increased employment has come entirely from state and local government employment as federal employment has decreased.

The total amount of county income contributed by this sector has increased from \$1,652,000 in 1973 to \$2,508,000 in 1978, a 51.8% increase.

*U.S. Bureau of the Census, Regional Economic Information System, Bureau of Economic Analysis, April 1980.

**North Carolina Department of Commerce, Camden County Population and Labor-Management Relations Profile, 1970 - 1978.

(6) Government Transfer Payment.

Government transfer payment includes Social Security payments, Welfare payments, Veteran's Benefits, and a variety of other income financed by federal, state, and local grants. This sector made the second highest gain in income produced of any in Camden County. Government transfer payments contributed \$2,429,000 in 1973. By 1978, its contributions had increased to \$5,200,000, a 114% increase, making transfer payments the largest single contributor to County income. The increase reflects the general aging of the County's population, as more and more persons become eligible for Social Security income. It is also an indication of greater dependence of certain population segments on various government social welfare programs.

(7) Rent, Interest, and Dividends.

The rent, interest, and dividend sector has shown the greatest rate of income increase of any sector of the economy. Income produced by this sector has increased 123% in the five year period from 1973 to 1978. The actual contribution of this sector is difficult to assess. This income represents earning on assets accumulated through production in a different period and does not represent actual goods and services now being produced in Camden County. The use and location of this available capital has not been determined.

b. Work Force .

The total work force in Camden County has not changed significantly in ten years. The total work force in 1970 was 2,130 persons. The October 1980 estimate indicates a work force of 2,330 persons, a 200 person (or 9.3%) increase in the labor force.

As has been noted before in this report, 42% of the workers commute outside of Camden County for employment. The five-year unemployment rate average has been 4.9%; the rate as of October 1980 was 8.6% (or 200 persons out of work).

Camden County has a substantial work force participation rate; 56.9% of all persons over 14 years of age in Camden County are actively employed or seeking employment. The most critical problem for the Camden County work force is its inaccessibility to high paying labor employment and the lack of necessary skills to obtain higher paying employment. The North Carolina Department of Commerce estimates that more than 55% of the County's work force is under-employed. The lack of highly skilled employment opportunities within the County, or even closely accessible to the County, encourages the County workers who do acquire the necessary skills to migrate to areas that offer more favorable employment opportunities.

c. Income.

The per capita income in Camden County has consistently lagged behind the state and the nation. In 1976 the per capita income of Camden County was just \$4,677, 15% below the state per capita income of \$5,478 and 27% behind the national per capita income of \$6,403. Average hourly earnings of production workers in Camden County averaged only \$2.90 per hour in 1977, 36% below the state hourly average of \$4.47. In 1977 59.4% of persons or families filing tax returns made \$8,000 or less. The total county income in Camden County increased from \$22,550,000 in 1973 to \$31,839,000 in 1978. This increase represents a 7% annual increase in total County income while the cost of living index was increasing at a 9.5% annual rate. The total county income for Camden County when adjusted for inflation is actually less in 1978 than it was in 1973. The Camden County total increase in the five years from 1973 to 1978 was 41.2% while the state total income increase was 61.2%. Camden County's income increase is 48% below that of the state.

3. Major Conclusions.

Analysis of the population and economy in Camden County reveals several trends and linkages which are important for future land use decisions.

The County's population fluctuations have been tied historically to external economic events. A relatively limited local employment base makes it necessary for a large portion of the county population (15-34 years old) to leave the County daily for jobs. This dependent migration pattern hurts the tax base of the county and presents unpredictable demand for those who might be interested in local commercial development.

Sectors in the County's economy, like its population, have shown considerable changes over the past few decades. Agriculture has declined in relative position, while non-farm sectors have risen. So far, these trends have offset each other in terms of income, largely because of the commuter sector mentioned above. A larger portion of the population is non-farm than 10 years ago, and the farm population is older than ever before. Thus, the trend in sector shift is likely to continue as the farm sector fails to replenish itself.

In light of these shifts, improvements should be made to diversify and expand the economic base of the County. As noted in the policy section above (Section II), resources with potential for production (agriculture, forestry, mining, and parks/recreational areas) offer opportunities for diversifying the economic base, strengthening employment, and reducing the number of commuter workers. Through strategic approaches toward using these resources while protecting the environment, the County's ability to serve an increasing demand for human services and to offer a stronger commitment toward attracting appropriate development can be improved.

C. Existing Land Use.

1. Description.

The following composite 1981 Camden County Existing Land Use Map and the eleven quadrant maps that detail it show that much of the County is covered with wooded swamp, forest and agricultural land. This section describes that acreage as documented in the Profile of North Carolina Counties, 1980 or as verified by analysis of these maps.

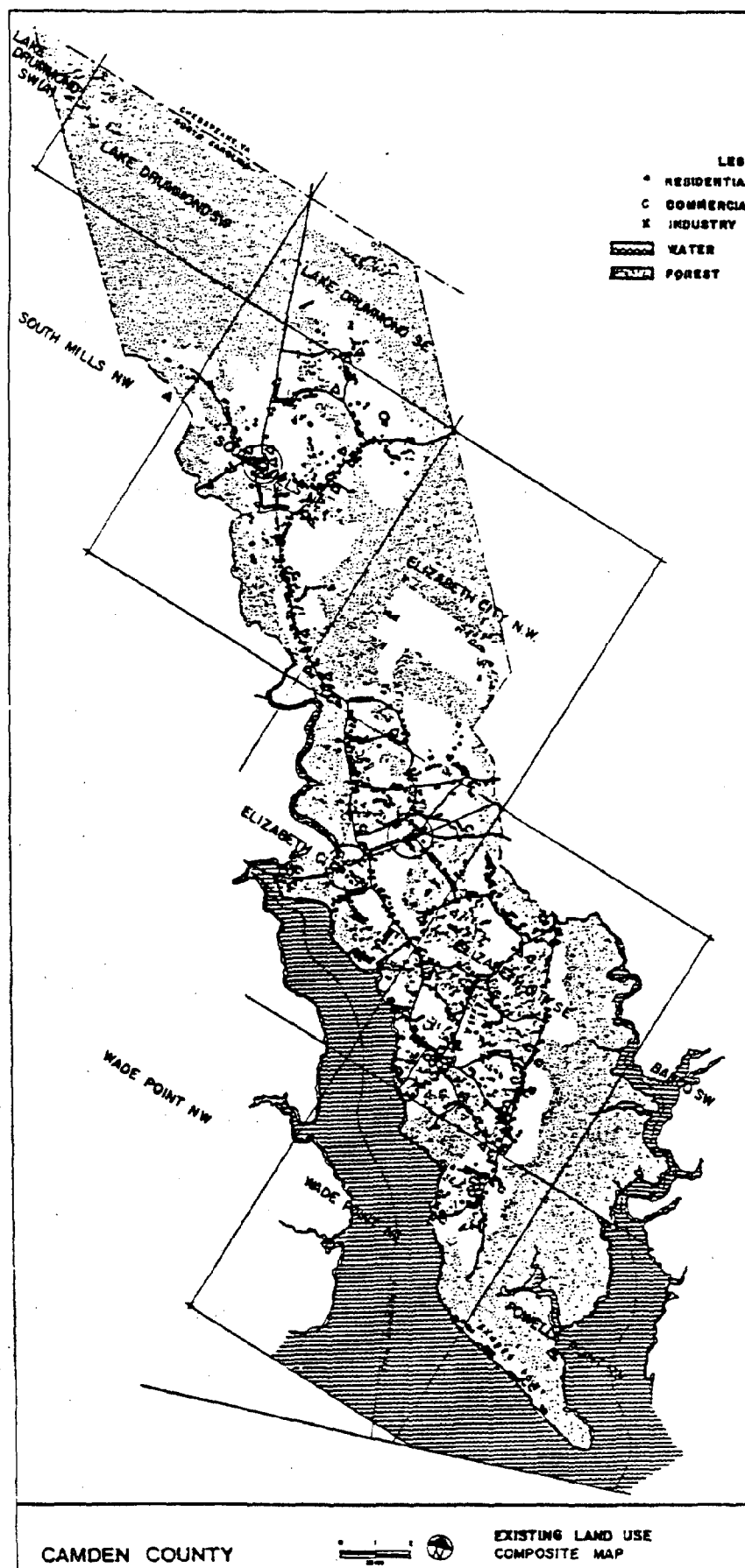
Forest claims most of the land, 107.3 of 152.5 square miles (70%). Almost half of the land is wooded swamp. Half of the land is flood-prone, according to the N.C. flood insurance maps. Forty-one percent of the land is privately-owned forest (62.9 square miles).

A quarter of the land (39 square miles) is in cropland or pasture. About 57% of the land (55,480 acres or 86.7 square miles) is in farms. The average farm is 334 acres. Total acreage in cropland, pastures and farms means that 83% of the land is in agriculture.

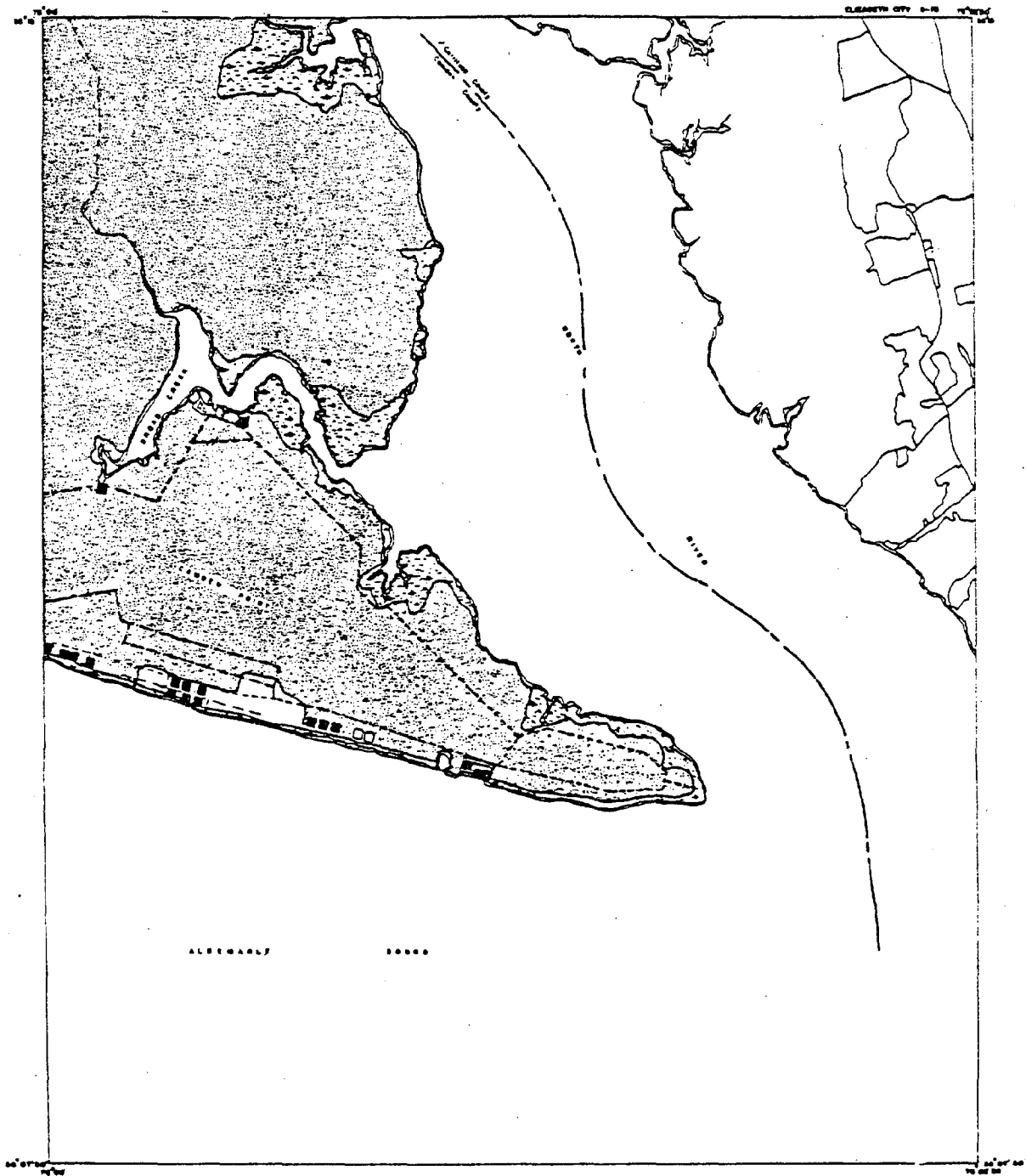
Camden County includes an additional 49.9 square miles of water, which is 25% of the total County area.

Dismal Swamp State Park is 14% of the County area (44.7 square miles).

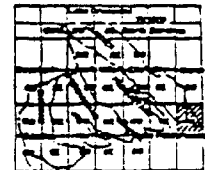
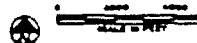
The implications of this land use distribution become clear as we turn to a detailed examination of the Camden County landscape.



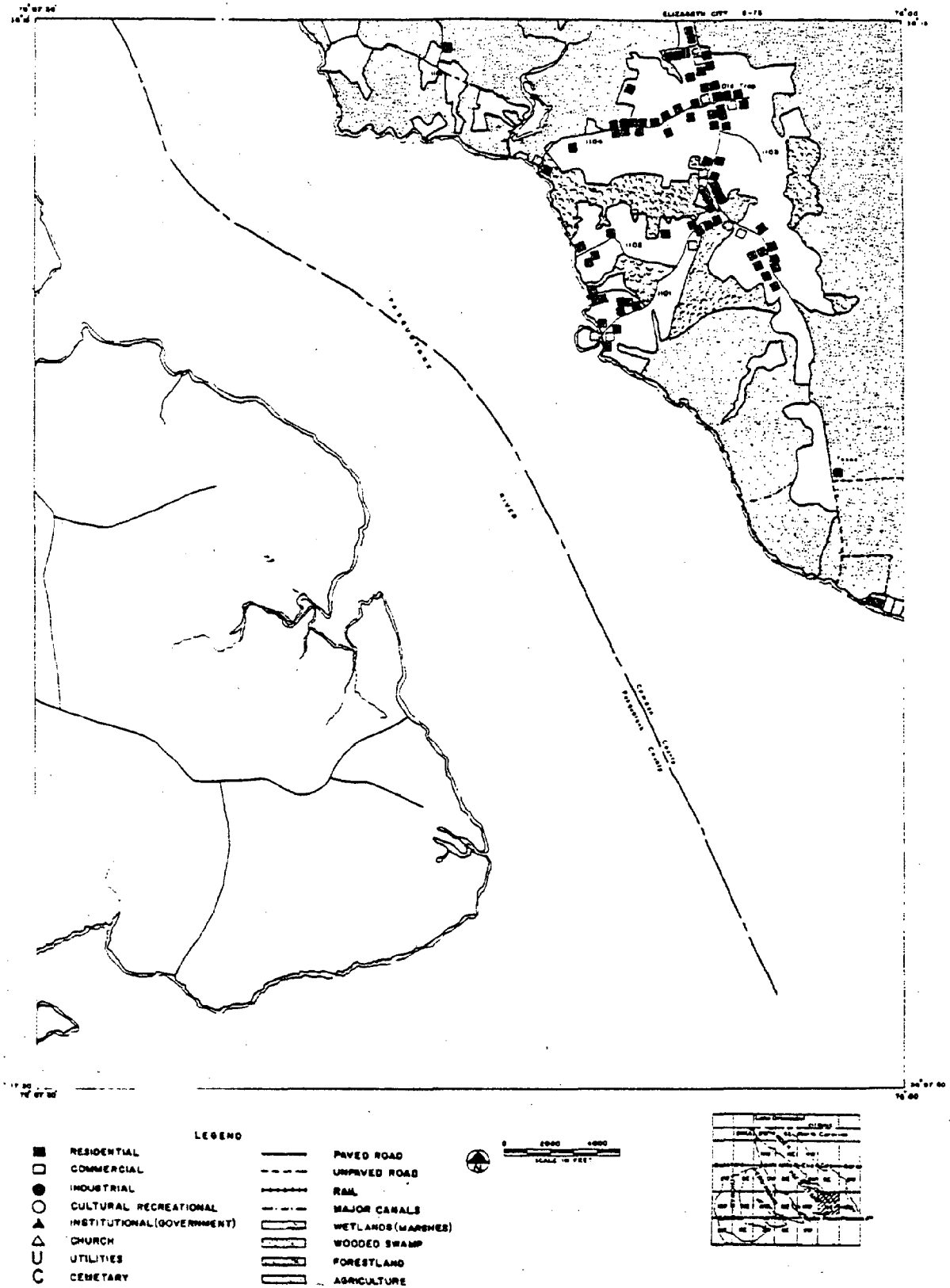
For detail, see
quad maps, pages
69 - 79.

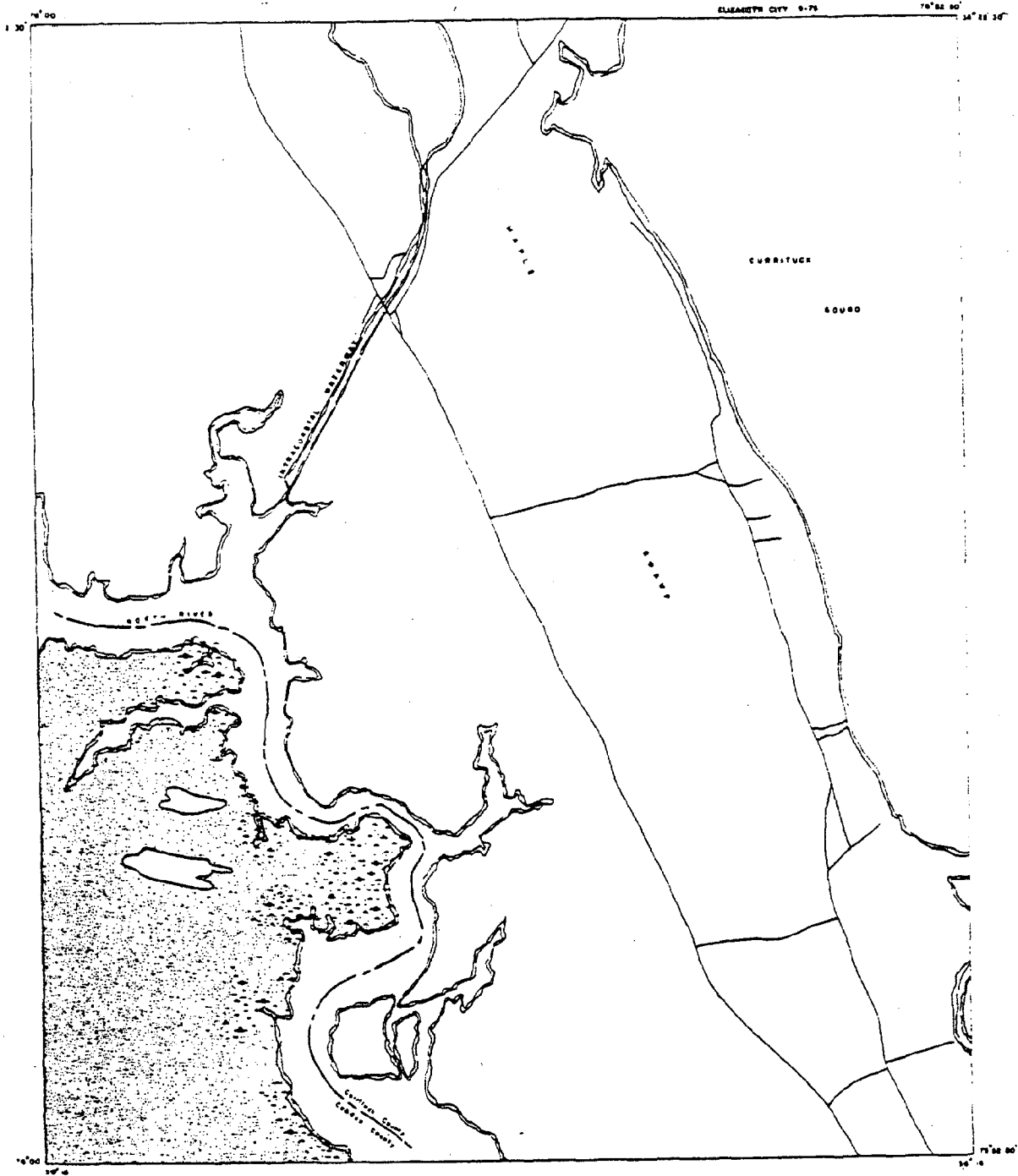


- | LEGEND | |
|------------------------------|--------------------------|
| ■ RESIDENTIAL | — PAVED ROAD |
| □ COMMERCIAL | - - - UNPAVED ROAD |
| ● INDUSTRIAL | ===== RAIL |
| ○ CULTURAL/RECREATIONAL | - - - MAJOR CANALS |
| ○ INSTITUTIONAL (GOVERNMENT) | ===== WETLANDS (MARSHES) |
| ▲ CHURCH | ===== WOODED SWAMP |
| U UTILITIES | ===== FORESTLAND |
| C CEMETARY | ===== AGRICULTURE |



POWELLS POINT NW





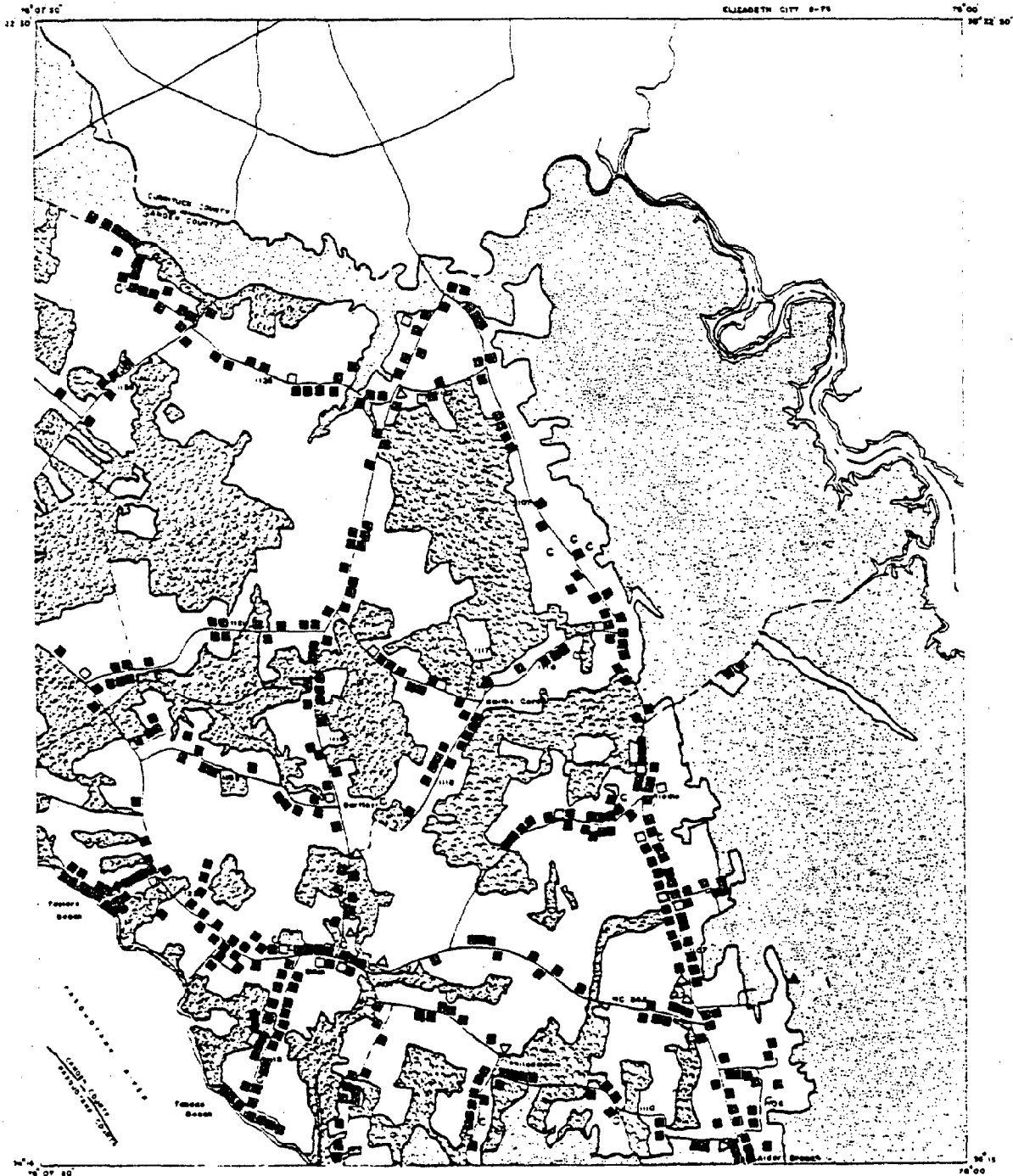
- LEGEND**
- | | |
|------------------------------|---------------------|
| ■ RESIDENTIAL | — PAVED ROAD |
| □ COMMERCIAL | - - - IMPROVED ROAD |
| ● INDUSTRIAL | — RAIL |
| ○ CULTURAL/RECREATIONAL | - - - MAJOR CANALS |
| ▲ INSTITUTIONAL (GOVERNMENT) | ▨ WETLANDS (SHRUBS) |
| △ CHURCH | ▨ WOODED SWAMP |
| U UTILITIES | ▨ FORESTLAND |
| C CEMETARY | ▨ AGRICULTURE |



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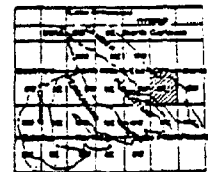


BARCO SW



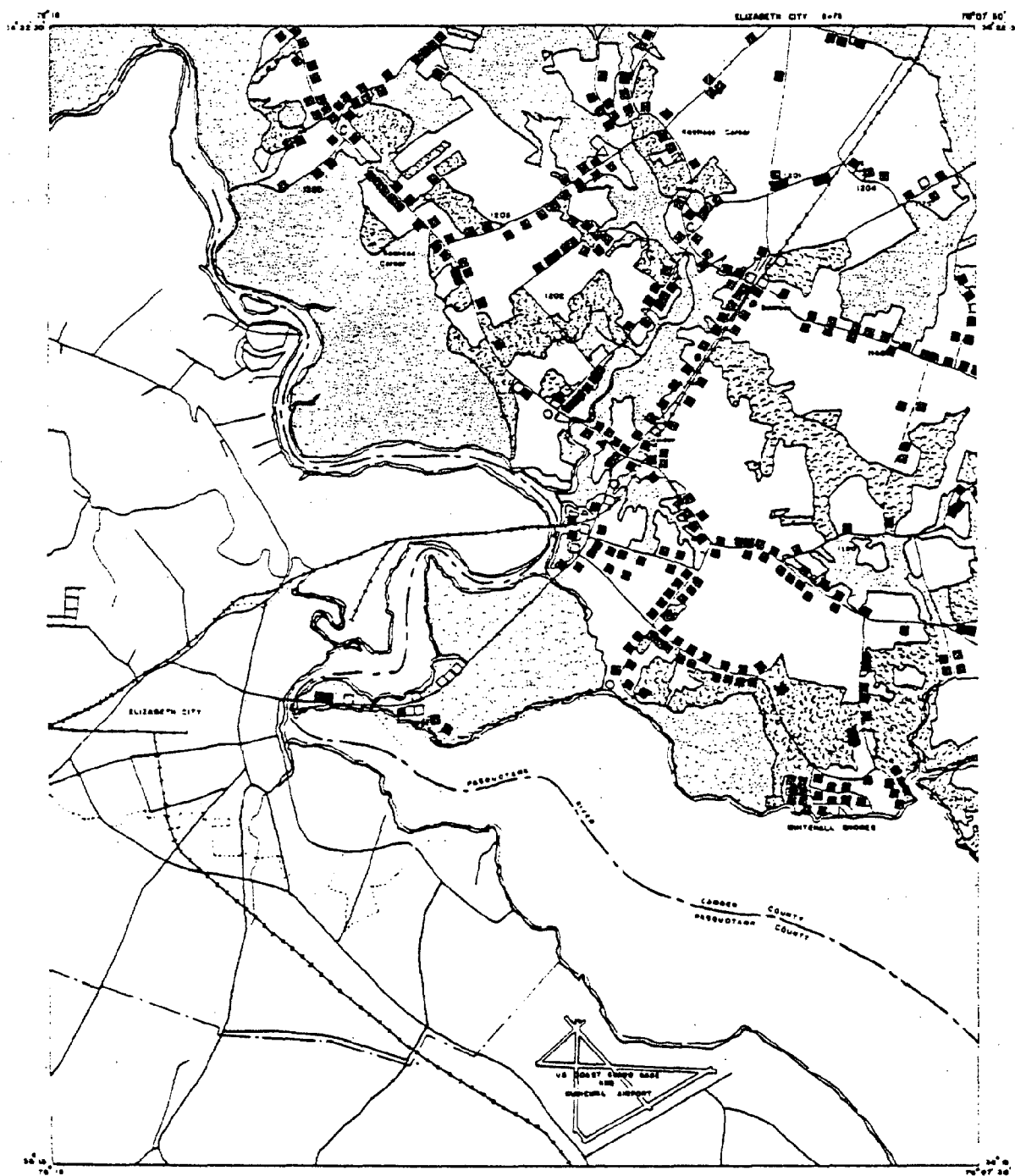
- LEGEND**
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| ■ RESIDENTIAL | — PAVED ROAD |
| □ COMMERCIAL | - - - UNPAVED ROAD |
| ● INDUSTRIAL | — RAIL |
| ○ CULTURAL/RECREATIONAL | — MAJOR CANALS |
| △ INSTITUTIONAL (GOVERNMENT) | — WETLANDS (MARSHES) |
| △ CHURCH | — WOODED SWAMP |
| U UTILITIES | — FORESTLAND |
| C CEMETARY | — AGRICULTURE |

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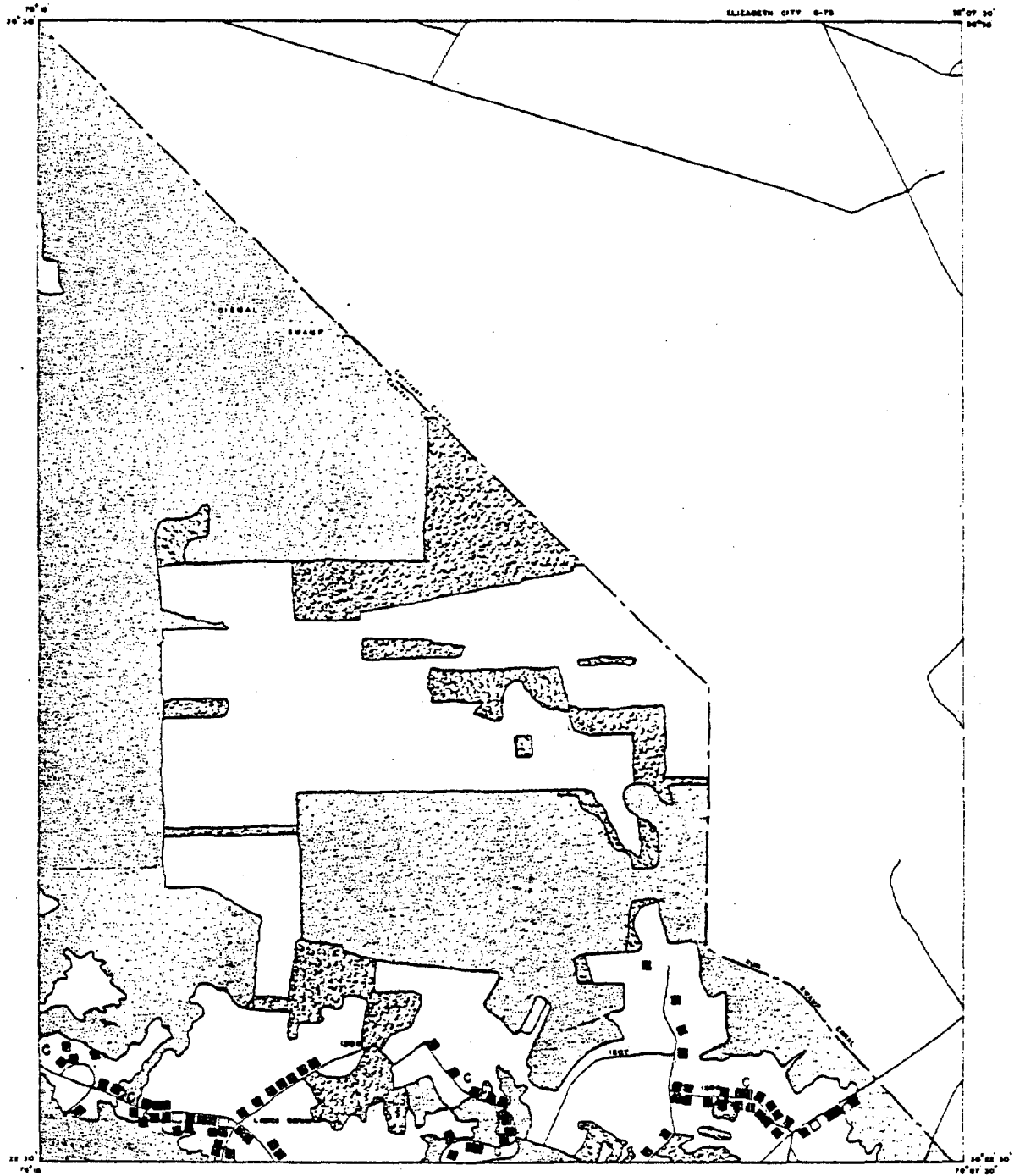
ELIZABETH CITY SE

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REVISED BY PERCHMAN, MAY

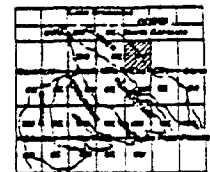


ELIZABETH CITY SW

④ PLANNING & DESIGN ASSOCIATES, P.C. - BALTIMORE, MD - AUGUST 1991
SERVICES: FURNISHING, 100%



- LEGEND**
- | | |
|------------------------------|--------------------------|
| ■ RESIDENTIAL | — PAVED ROAD |
| □ COMMERCIAL | - - - UNPAVED ROAD |
| ● INDUSTRIAL | - - - RAIL |
| ○ CULTURAL/RECREATIONAL | - - - MAJOR CANALS |
| △ INSTITUTIONAL (GOVERNMENT) | - - - WETLANDS (MARSHES) |
| ▲ CHURCH | - - - WOODED SWAMP |
| △ UTILITIES | - - - FORESTLAND |
| ○ CEMETARY | - - - AGRICULTURE |

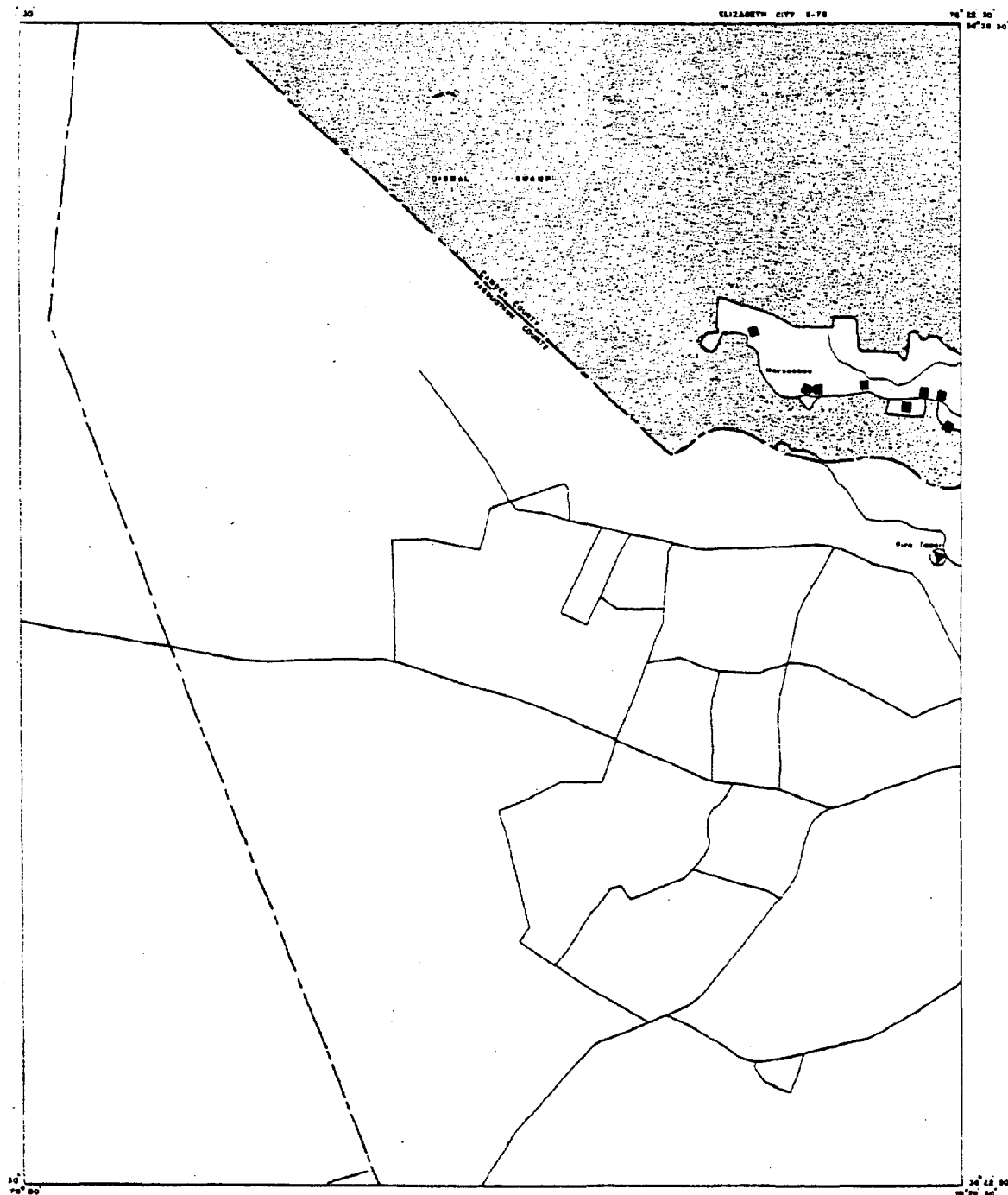


ELIZABETH CITY NW

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REVISED: FEBRUARY, 1969



① PLANNING & DESIGN ASSOCIATES, P.A., 644 FIFTH, S.E. - ATLANTA, 1961
REYNOLDS: RECONSTRUCTION, MDI.



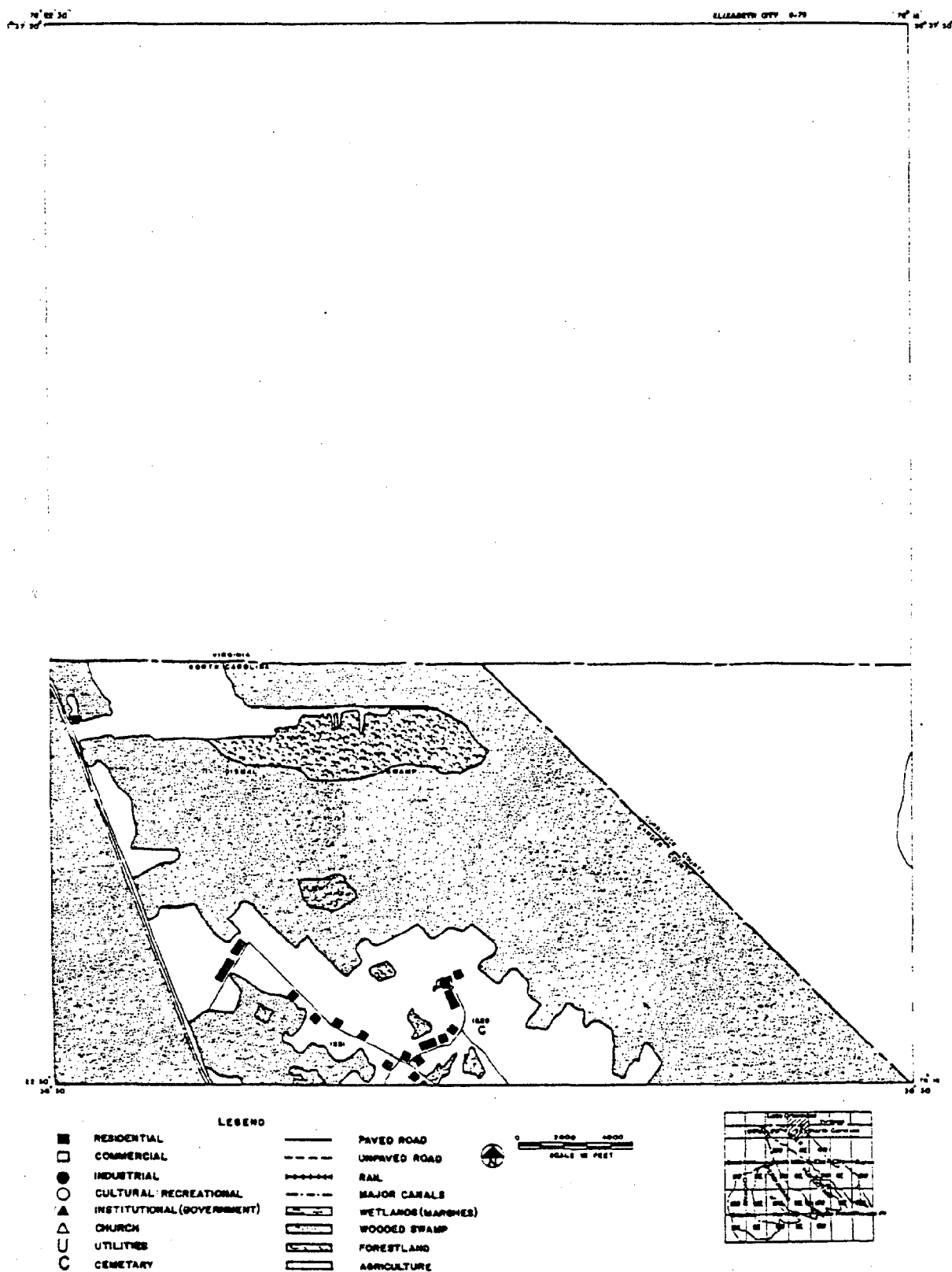
LEGEND	
■ RESIDENTIAL	— PAVED ROAD
□ COMMERCIAL	- - - UNPAVED ROAD
● INDUSTRIAL	- - - RAIL
○ CULTURAL/RECREATIONAL	- - - MAJOR CANALS
▲ INSTITUTIONAL (GOVERNMENT)	▨ WETLANDS (MARSHES)
△ CHURCH	▨ WOODED SWAMP
U UTILITIES	▨ FORESTLAND
C CEMETARY	▨ AGRICULTURE



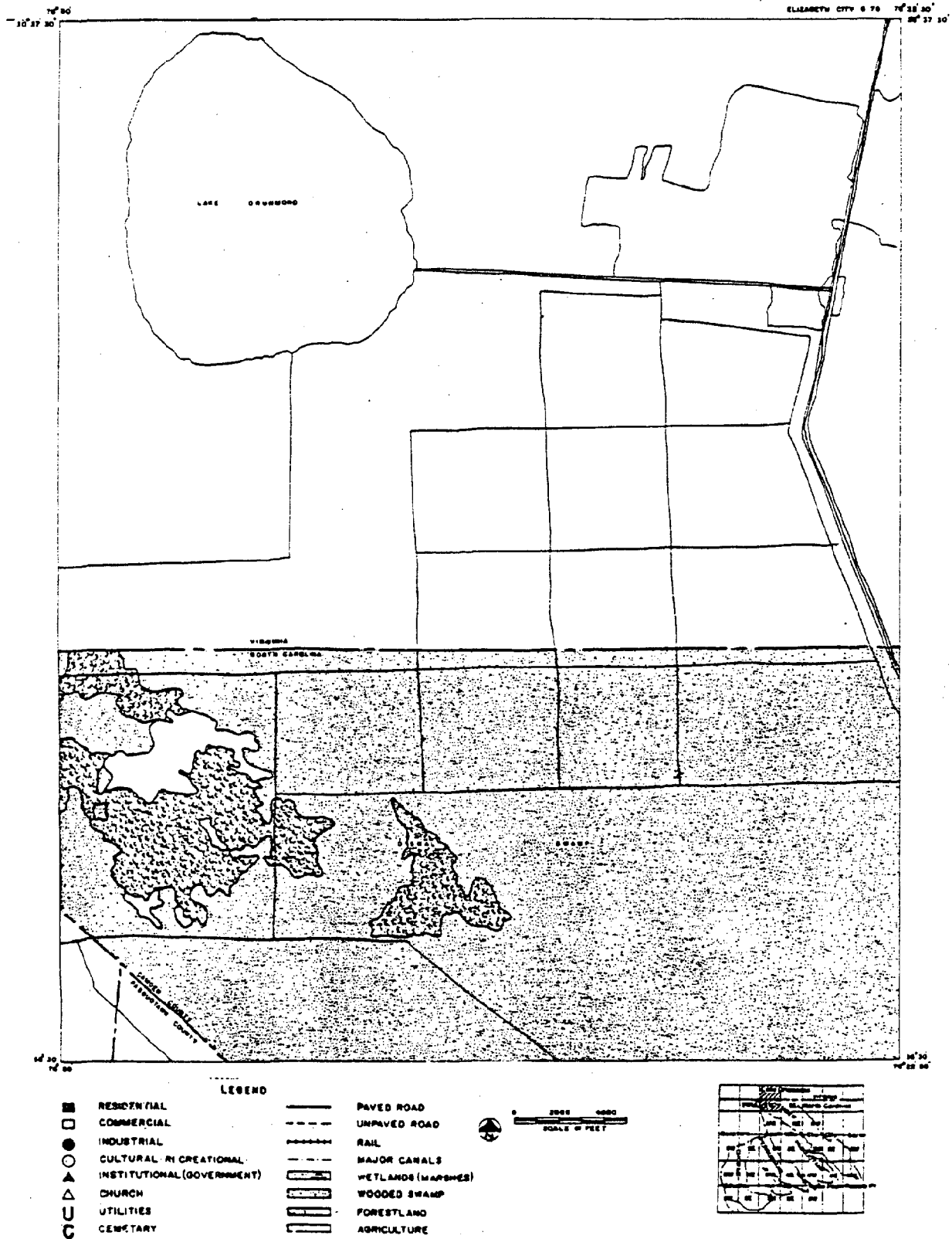
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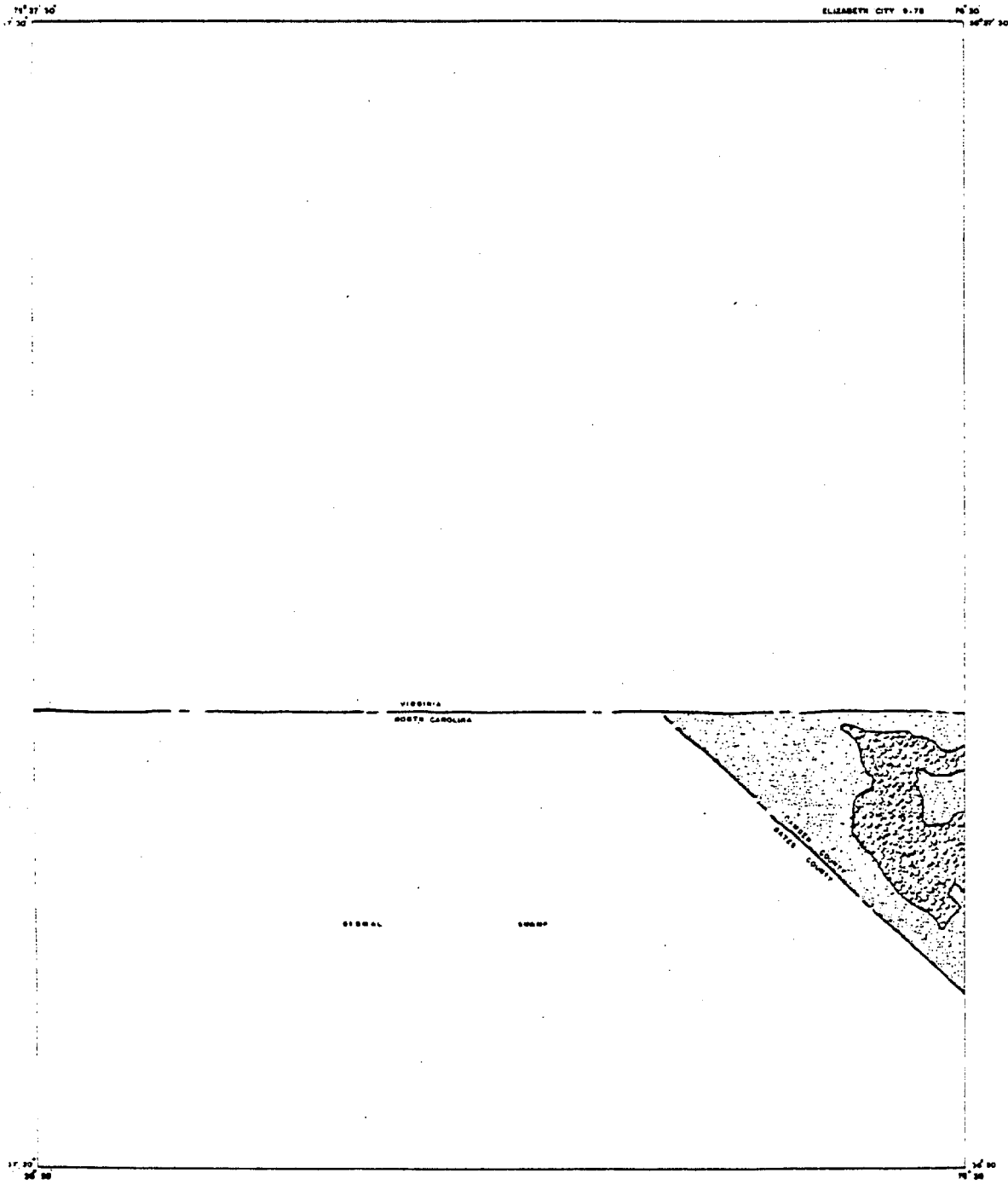
SOUTH MILLS NW



LAKE DRUMMOND SE



LAKE DRUMMOND SW



LEGEND

■	RESIDENTIAL	—	PAVED ROAD
□	COMMERCIAL	- - -	UNPAVED ROAD
●	INDUSTRIAL	- · - · -	RAIL
○	CULTURAL/RECREATIONAL	- - - - -	MAJOR CANALS
▲	INSTITUTIONAL (GOVERNMENT)	▨	WETLANDS (MARSHES)
△	CHURCH	▩	WOODED SWAMP
U	UTILITIES	▤	FORESTLAND
C	CEMETERY	▥	AGRICULTURE

SCALE - FEET

LAKE DRUMMOND SW (A)

① PLANNING & DESIGN ASSOCIATES, P.A. - BALTIMORE, MD. - JANUARY, 1981
 REVISED - FEBRUARY, 1981.

a. Residential Land Use.

Residential land use is predominantly year-round housing, with some recreational or river-front units in Camden Point Shores, which has 483 lots, and White Hall Shores, which has 380 lots. Houses have been or are being built on about 7% of these lots.

As shown on the county map of existing land use, page 68, most of the residential development outside these subdivisions is located along the paved state secondary road system throughout the County.

As noted in the foregoing discussion of population, the number of housing units increased from 1,747 in 1970 to 2,148 in 1980, an increase of 23.0%, according to the Advance Census counts for 1980.

According to the Preliminary 1980 Census, which provided a more detailed breakdown for 2,116 housing units, the rate of increase in housing units out-paced the increase in total population in each township. This, together with a drop in family size, indicates that a considerable amount of development involves only 5% of the overall population of the County.

This pattern is shown on the quadrant maps, pp.69 - 79, which visually present increased activity in residential land use when compared to the 1976 maps of the same areas.

RESIDENTIAL DEVELOPMENT

<u>Component Parts</u>	Total	Vacant	Vacancy Rate	<u>Housing Units</u>	
				1970 Total	% House Change 1970 - 1980
Camden County	2,116	205	9.8	1,747	21.1
Court House Township	727	57	7.9	570	27.5
ED 0101	475	35	7.4	---	----
ED 0102	252	22	8.8	---	----
Shiloh Township	663	88	13.4	569	16.5
ED 0100T	338	47	14.0	----	----
ED 0100U	325	41	12.7	----	----
South Mills Township	726	60	8.3	608	18.4
ED 0103	390	39	10.0	---	----
ED 0104	336	21	6.3	---	----

As shown above, the 1980 County vacancy rate (9.8%) is considerably higher than that for an optimal housing market (5%).

Consistent with the pattern of population shift from Shiloh to Courthouse Township, Shiloh has the highest vacancy rate in the County and Courthouse the lowest. It was noticed that in the previous decade additions to Courthouse housing were slightly larger than in other townships.

During the 1970's, Courthouse showed the highest population change, had the largest family size, and experienced the lowest vacancy rate; clearly Courthouse was the focus of residential activity. Similarly, Shiloh had the least such land use activity.

According to the 1970 Census and the 1978 Camden County Housing Element, 92.1% of the housing units were year-round units and single-unit structures, leaving an estimated 7.9% in multi-family units. 74% were owner occupied; 32.8% lacked some or all plumbing; 12% were overcrowded. The housing stock was valued at only \$8,276 (median value per unit) with median gross rent of \$57 per month.

As noted above, the 1980 Final Census count shows 2,148 housing units in Camden County. The Land Use Plan update in February, 1981 included a thorough windshield survey. Although it did not count as many houses as the U.S. Census, it did reveal a marked pattern in the quality of housing in the county. The table below shows the percentage of houses by condition, as applied to the total count of units by the Census.

OCCUPIED UNITS (1,943)

<u>Condition</u>	<u>Percent</u>	<u>Number</u>
standard	51.5%	1,001
Substandard (in need of repairs costing less than \$1,500)	27.6%	537
Substandard (in need of repairs costing \$1,500 to \$15,000)	16.4%	318
Dilapidated (worthy of demolition and replacement)	4.5%	87

VACANT UNITS (205)

Habitable	40.0%	82
Dilapidated	60.0%	123

YEAR-ROUND MOBILE HOMES (220)

Standard	48.6%	107
Substandard (repairs less than \$1,500)	36.8%	81
Substandard (repairs \$1,500 to \$15,000)	13.6%	30
Dilapidated	0.9%	2

Thus, the survey revealed that only 20.9% of the housing stock (occupied) is seriously substandard or dilapidated. This rate is consistent with 1981 data recently taken from the North Carolina Department of Human Resources.

b. Commercial Land Use.

Since the 1976 Land Use Plan was written, a new shopping center has been added to Camden community at the intersection of Hwy 158 and the railroad.

This has reinforced the "cluster" pattern of development advocated in that Plan and has prepared the local community to better deal with increasing costs of transportation to Elizabeth City and Norfolk for basic needs.

Otherwise, commercial land use has not changed significantly since the 1976 Plan. The 1981 quadrant maps show continued concentration at local crossroads where residential development is more dense, particularly in the South Mills area and along US Highway 158 from the Elizabeth City Bridge to Belcross.

As indicated in the 1981 survey of existing land use, the County has 27 commercial establishments, covering a wide variety of types. Combined responses from the 1980 citizens survey show that 36% feel that there is a moderate to serious shortage of commercial development; 16% state that this was a slight problem; and 46% stated that if there was a shortage, it was not significant.

The Profile of North Carolina Counties (6th edition, 1980) shows that only 1.9 square miles (1.2%) of the land area is "urban and built-up". The 1981 land use and housing surveys indicate that approximately 1.5% of this area is commercial, with 98.5% being residential or agricultural in nature.

c. Cultural and Institutional.

As shown on the Land Use Quadrant Map (page 69), a considerable amount of land is used for cultural purposes in the form of churches at country crossroads and cemeteries throughout the County.

Institutional land use in Camden County takes the form of schools and administrative buildings and state government office buildings located in the Camden Community (See Quad Map "Elizabeth City, SW", page 73).

In 1967, 245 acres were designated as federal land, representing only 0.25% of the County's total land area. Like the other cultural and institutional uses enumerated above, federally owned lands contribute nothing to the local tax base, making it more difficult for the County to commit strongly to services in support of development.

Many of the cultural resources of the County have potential as historically significant structures and sites. The North Carolina Department of Cultural Resources maintains files on historic resources in each county in the state. Many of the sites in the Department's files are shown on the 1976 Land Use Plan, pages 45-50. Others may be identified or added to the Camden County file by contacting Joanne Williford at the Department (919-733-6545).

The table below lists those properties in the County which have not been nominated but have been deemed worthy of further study, and those already added to the National Register Study List.

National Register:

Caleb Grandy House
Camden County Courthouse
Milford (Relfe-Grice-Sawyer House)
Mullen-Abbot House
Lamb-Ferebee House

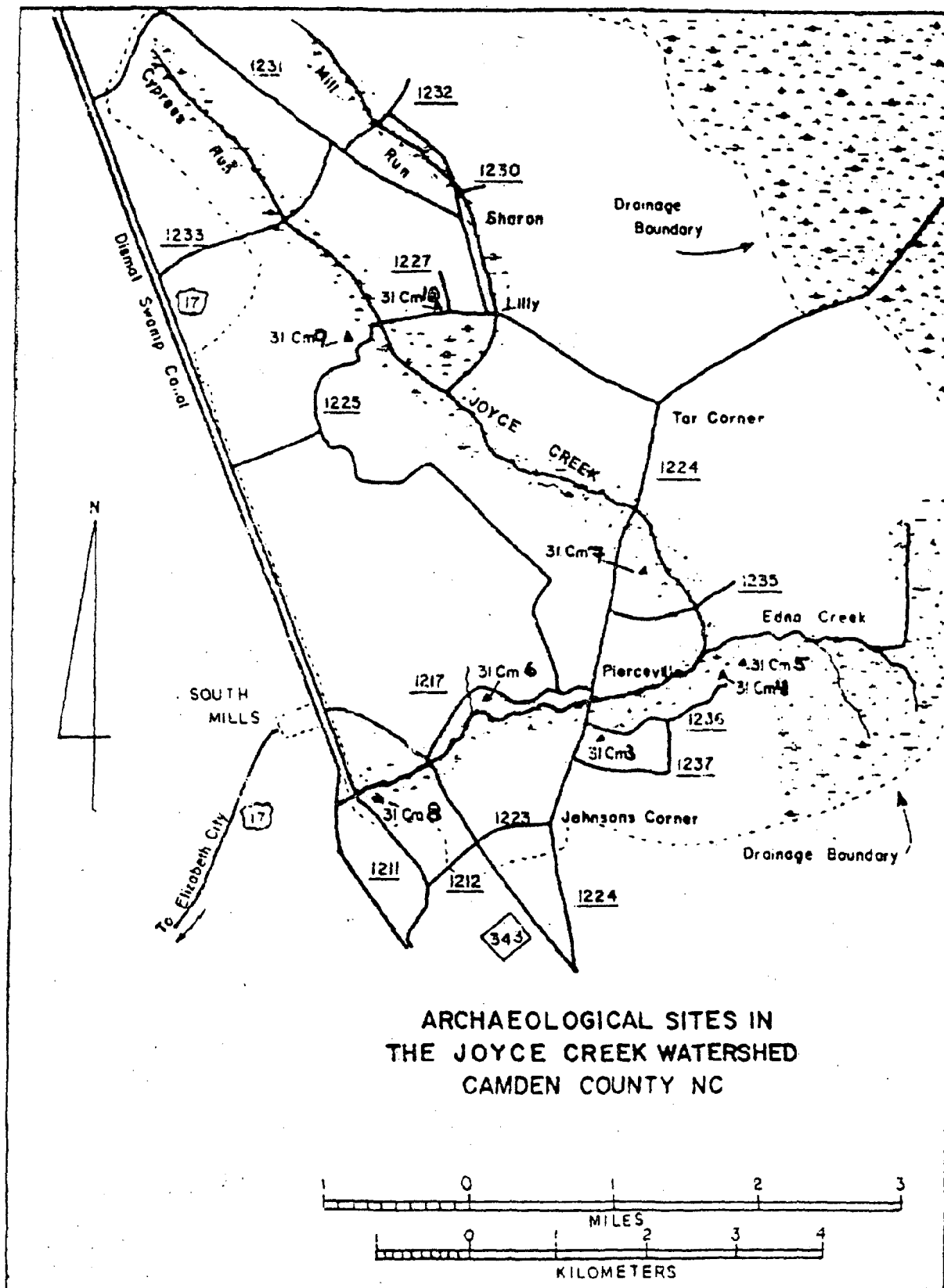
Study List:

Great Dismal Swamp
Masonic Lodge

Source: North Carolina Department of Cultural Resources

At the present time, there has been no countywide inventory of historically and architecturally significant sites. Future possibilities for inventory work are uncertain because of the elimination of Federal funds for state survey and planning activities. In addition, Federal funding cuts will necessarily limit the ability of the Department of Cultural Resources staff to prepare National Register nominations. Any possible future nominations in Camden County that are prepared by the Department will be chosen according to a set of nomination priority criteria. Otherwise nominations must originate from Federal agencies for Federally-owned properties or from private sources.

In addition to historically significant sites and structures, the Department of Cultural Resources has provided the following page 84 which shows the distribution of the only known archaeological sites in Camden County -- those in the Joyce Creek Watershed. As noted by Nancy A. MacKenzie, Archaeological Technician (4/81), Camden County has never been systematically surveyed by an archaeologist to locate other sites and their significance. Therefore, there is a high probability that unknown archaeological resources are present, this potential should be taken into consideration during the implementation of this Land Use Plan.



ARCHAEOLOGICAL SITES IN
THE JOYCE CREEK WATERSHED
CAMDEN COUNTY NC

Site distribution in the Joyce Creek Watershed.
Source: Survey Report
by Dr. David Phelps (ECU)
1976

d. Recreational Land Use.

In 1976, the multi-county region from Gates, Chowan, Washington, and Hyde eastward has 6.06 acres per capita for recreation (1976)*, to North Carolina's 0.66. Camden features 28,204 acres designated as a Class III State Park -- the Dismal Swamp State Park. This means that over 13.9% of the County's 202,432 area is designated state park, providing the area with an emphasis on providing a quality natural environment--"(Such) areas are usually developed to an extent that only 5% to 10% of the surface area is for intensive human use with the remainder being maintained in a natural state."** This area offers weekend and vacation activities dependent on a natural setting such as native study sightseeing, hunting and fishing, light facility development, access, trails and campsites.

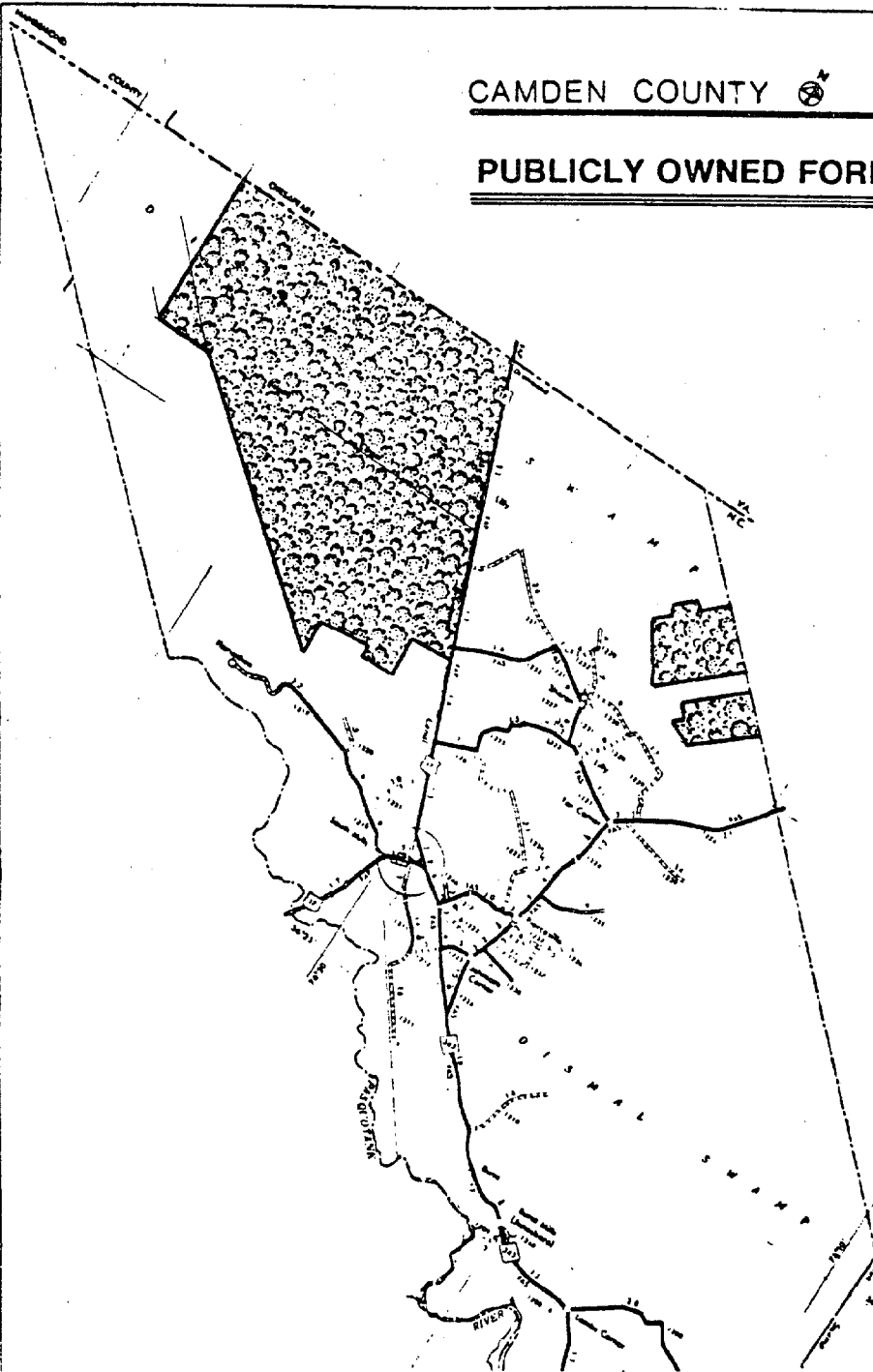
Currently, there are no public, i.e. County owned, recreational facilities in Camden County.

* NC Dept of NRCD, Division of Parks and Recreation, NC Outdoor Recreation Area Inventory, NC Department of Administration, Div. of State Budget and Management, 1976 Population Estimates in Statistical Abstract, 1979, p. 189.

** Statistical Abstract, p. 190.

CAMDEN COUNTY

0 1 2 3 4 miles

PUBLICLY OWNED FORESTS AND PARKSPublicly Owned Forests and Parks

Two areas have been identified as shown on the Forests and Parks Map.

The Dismal Swamp State Park is located along both the Dismal Swamp Canal and the Camden County-Virginia State line. The second forest area is located on the eastern Camden County line. This area extends into Currituck County.

Source: Camden County Land Use Plan: 1975-1985

e. Agricultural and Forest Lands.

As seen on the Land Use Maps, cropland and pastures make up 39 square miles, or 25% of the County's land area. An additional 107.3 square miles (70%) are covered by wooded swamps and forests.

Agriculture continues to be a major land use in the County, growing from 51,925 acres in 1974 to 55,480 acres in 1978, an increase of 6.89%.

The 1978 Preliminary Census of Agriculture for the County summarizes other trends of agricultural land use between 1974 and 1978:

- a 10.7% increase in the total number of farms (from 150 to 166);
- a 6.8% increase in the total acreage of land in farms, as noted above;
- a decrease in the average farm size (from 346 acres to 334);
- a 66% increase in the average value of farms in the County (from \$171,780 to \$285,377);
- a 70% increase in the average value of farmland (from \$496/acre to \$844/acre);

134 of the 166 farms (80.7%) were owned by individuals or families;
64 farms (38.5%) were operated by full owners; 61 (36.7%) by part owners, and 24.6% of tenants;

The number of farms in harvested cropland has increased 14.3% while cropland used only for pasture has declined 25%. Farms with "other cropland" increased 30% between 1974 and 1978, indicating that many farms are not actively being harvested;

Livestock farming showed the following trends. Cattle and calf farms declined from 30 in 1974 to 19 in 1978. Hog and pig farms increased from 48 to 57 in the same period.

As these data convey, the conversion rate of agricultural lands to non-agricultural uses has been limited over the four year period. Conversely, the rate of change of land to agricultural use has grown moderately.

As shown on the Existing Land Use Composite Map, the agricultural land in the county is inland from the wetter soils around the periphery of the County. In fact, agricultural land users compete for the areas which are also better suited for commercial and residential uses. This was an issue in the citizen's survey, since 30% of the respondents stated that conversion of forested land to agricultural uses was of moderate or serious concern to them; 15.6% stated that it was a slight concern; 54.61%, over half the respondents, stated that this conversion was not a problem in Camden County. This conversion is discussed in the policy section regarding types of land use patterns desired, pages 41 - 43 .

Ahead of agriculture in total acreage covered is the County's forested area, which makes up 53% of Camden County, as shown on the Land Use Maps. The bulk falls into the wooded swamp category, with the remainder in forests.

As shown on the Fragile Areas Map, page 8 , nearly 40% of the County's land area is covered by wooded swamp. Wooded swamps are part of the wetland family which also includes marshes, mudflats, and non-wooded swamps. As wetlands, wooded swamps are where the water table is at, near, or above the land surface for a significant portion of most years.

As indicated in the policy section regarding other hazard or fragile areas, page 22 , wooded swamps are valuable to the County because they slow down the rate of water run-off from developed areas, thereby reducing erosion; trap nutrients which provide feeding grounds for fish and other water species; provide a habitat for black bear and other wildlife; and act as a buffer between developed areas and designated Areas of Environmental Concern, such as estuarine shorelines. Additionally, by retaining moisture, they contribute to the important component of total annual soil moisture necessary for crop production in the County.

Wetlands are dominated by wooded vegetation, primarily cypress, tupelo, oaks, and red maple. Shrub swamp vegetation includes alder, willow and button-bush.

Forest land, in contrast to wooded swamps, has a tree-crown areal density of 10% or more, is stocked with trees capable of producing timber or other wood products, and exerts an influence on the climate or water regime. This category includes lands on which there are rotation cycles of clearcutting and block-planting, in addition to forest land which is grazed extensively. The forest land category contains deciduous trees such as oak, maple, hickory and aspen, in addition to evergreens among which are various pines, hemlock, and spruces.

Lumber and pulp-wood operations have not been extensive in the past, although corporate holdings of forest land are found in the northern part of the County, where drainage of swamps for commercial forestation has occurred. The 1980 citizen's survey indicated that swamp drainage was considered a very important issue by residents.

The 1978 Census of Agriculture preliminary report notes that woodland, including woodland pasture, decreased from 8,940 acres in 1974 to 7,420 in 1978. The number of farms in woodland areas increased, however, from 57 to 61 during that time, indicating smaller farms with wooded pastureland.

As shown by a comparison of the Land Use Map with the General Soils Map, forested areas are inland away from the soils with a high water table. Like agricultural uses, the forests compete with the economic and community development (urban) uses for the prime land in Camden County.

2. Analysis of Existing Land Use.

a. Significant Land Use Compatibility Problems.

Incompatible land uses exist where human activities negatively affect other human activities, the natural environment, and property values. Some incompatibilities are immediately noticeable, such as smoke and smells in a residential area which come from a nearby industrial plant. Other incompatibilities develop gradually and are not immediately noticeable, such as the slow sedimentation of a stream by silt from adjacent farmland.

In Camden County, as elsewhere, the determination of whether adjacent land uses are incompatible is often a judgement based not only upon available data, but also upon the values of the group or person making the decision. In other cases, various laws and regulations, such as those enforced by State Department of Health and by local zoning and subdivision regulations, define, in the public's interest, when violations (i.e. incompatibilities) arise.

As noted in the 1976 Land Use Plan, many land use compatibility problems, for the most part, have been avoided in the County. The County is rural with low development pressures, and industrial and commercial activity is very limited. On the other hand, situations do exist which could lead to significant problems in the future.

As shown on the Land Use Incompatibilities Map, page 91, these potential problem areas occur in several categories. First are instances in which agricultural or community facilities encroach on wooded swamps and other fragile or hazard areas. Currently, there is potential for problems to arise in wooded swamps, wetlands, and groundwater supplies, resulting from agricultural practices, the high watertable of the landfill, and unauthorized open dumps (see Hazard Areas Map as well, page 15). Runoff from these sites could upset ecological and hydrologic balances including sedimentation and chemical pollution of surface waters as well as groundwaters.

In some cases, agricultural uses exist extremely close to residences or community facilities. The location of a grain storage facility next to the high school has been cited by the State as a safety matter. This storage facility does cause dust problems and some traffic problems at the high school.

A second category exists where residential development occurs in areas which face serious soil suitability problems (foundation stability, septic absorption, etc.) and where other ecological functions may be endangered. As noted in the 1976 Land Use Plan, one such area is the Camden Point Shores Area. This is a second-home development that began in 1966 in an area with a very high water table and otherwise unsuitable soil, covered with wooded swamp. Although extensive drainage has been attempted, there is still considerable potential for future problems if the area continues to develop with septic tanks. The issue of incompatibility of land use mixes in this area was heightened when developers began operating commercial (albeit agricultural) greenhouses in the ostensibly residential area. Based upon field analysis, continued development of the 483 lots which have been platted on the 5,000 acre site will undoubtedly increase the probability of damage to the area and its ecology. This problem is addressed in the Land Classification section, part III, page 53.

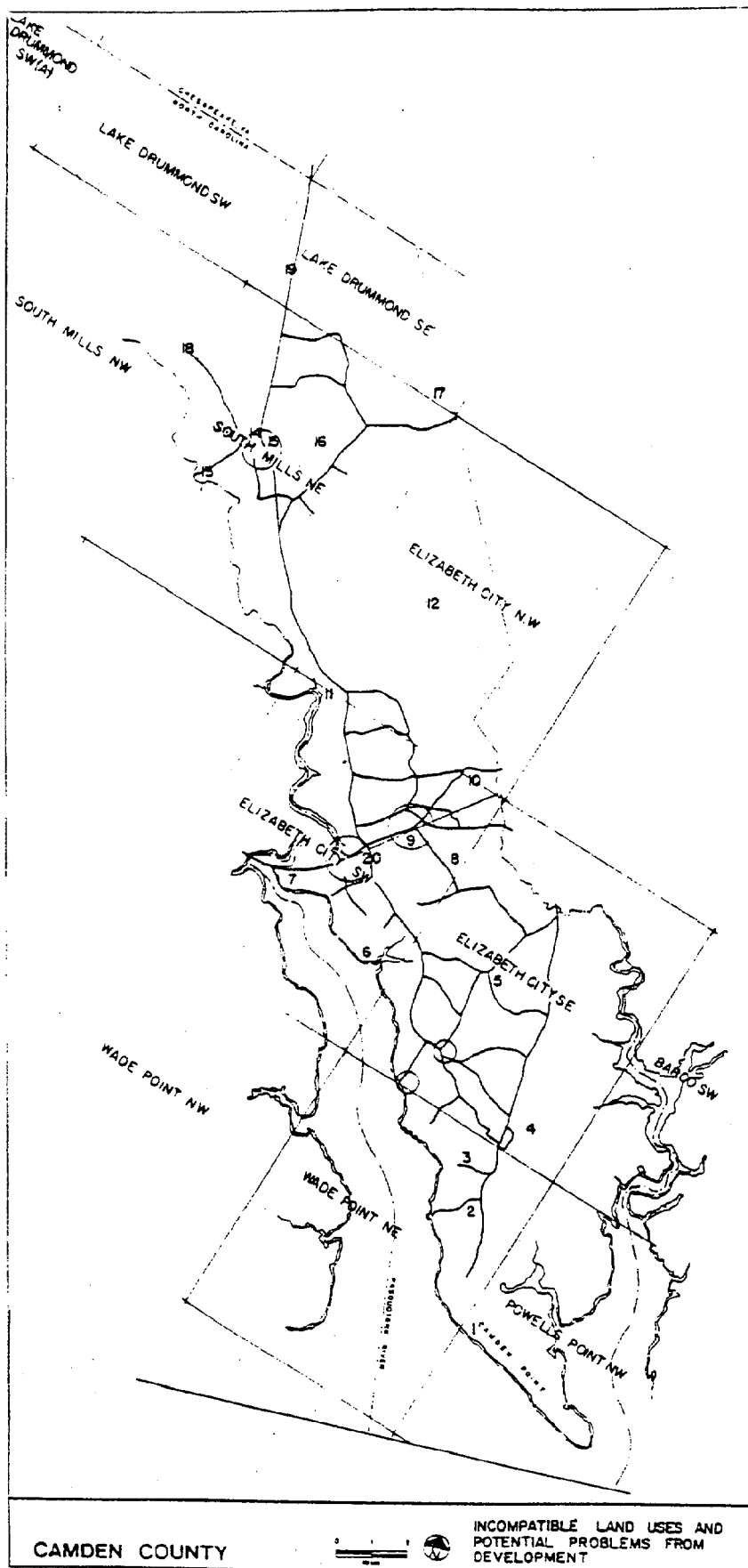
A third category of incompatibility exists along US 158 near the Pasquotank River. Review of the Elizabeth City NW quad map, page 74 and the Fragile Areas Map, page 8 reveals why the development of the marshes along the Causeway has been a sensitive situation for many years. Further strip development of this area could destroy the unique and beautiful vistas of the river and adjacent marshes, as well as damage the estuary.

A final category is exemplified by the new construction of US 17 through the South Mills community. Completion will mean that this community, like many others, will be by-passed by potential commercial development opportunities. Over the next 5 to 10 years; this may become critical, since there is limited access to the community from the highway, particularly from the north.

Recognition of such instances can give the County Commissioners some indication of potential problems, as well as an idea of what mixtures of land uses they should monitor in the future. Toward that end, the following list of incompatible land uses and problems from planned and unplanned development is keyed to the aforementioned map for easy recognition. Some uses may be added or removed during the continuing implementation process of this plan.

(Numbers refer to locations on the following map, page 91)

1. Residential subdivision and canal dredging encroaching on wooded swamp; commercial greenhouses in residential area
2. Hog parlor near residence
3. Hog parlor near residence
4. County landfill encroaching on wooded swamp in close proximity to residences
5. Hog parlor near residences
6. Residential subdivision encroaching on tidal wetlands and an eroding shoreline
7. Commercial strip along US 158 conflicting with scenic values and wooded swamp
8. Agricultural clearing encroaching on wooded swamp
9. Asphalt plant near residences
10. Open dump near residences and encroaching on wooded swamp
11. Agricultural grain or chemical storage near residence
12. Massive agricultural clearing encroaching on wooded swamp
13. Potential for strip development encroaching on wooded swamp
14. US 17 project consuming farmland and bypassing businesses in South Mills; limiting access to US 17
15. Oil storage facilities near residences
16. Residential development encroaching on wooded swamp and the Joyce Creek floodplain
17. Agricultural clearing encroaching on wooded swamp
18. Agricultural and residential development encroaching on wooded swamp
19. Widening of US 17 consuming farmland and wooded swamp
20. Grain storage facility next to high school



b. Major Problems That Have Resulted from Unplanned (and Planned) Development, and that Have Implications for Future Land Use.

Camden has avoided any major problems for unplanned growth due to the simple fact that the County is still very rural and has not experienced a great deal of growth over the years. Also, the County Commissioners are very aware of some of the problems adjacent counties have had with unplanned growth.

This CAMA Land Use Plan process has developed policies which can be enforced through the County's zoning ordinance and subdivision regulations toward the goal of preventing many of the incompatibilities referenced in the previous section, though some are clearly out of the control of the County Commissioners. Particular examples include the continuing, though slowed development of Camden Point Shores and the construction of Highway 17 North through South Mills.

There are no "major" or pressing incompatibility issues that will impact the County greatly in the near future among those identified above. However, the potential for problems in certain localized areas does warrant well-planned and deliberate attention by the Board of Commissioners and the local citizenry.

c. Areas Experiencing or Likely to Experience Major Land Use Changes.

The 1976 Land Use Plan noted that the area around South Mills might change during the ten-year planning period, depending upon the type and amount of development of the Dismal Swamp State Park and the widening of US 17 through the South Mills area. Hindsight now shows that, though nothing has been done about the park and its potential as a recreation area and visitors center, the US 17 by-pass has changed the landscape of the area. This impact has certainly just begun.

In addition to this obvious area of projected change, the Camden Development Advisory Committee anticipates that the increasing cost of gasoline will heighten the concentration of population near areas already developed, and reinforce the population shifts now underway from Shiloh to Courthouse Township.

Interviews with the staff and the board of the South Mills Water Association indicate that if additional water supply can be obtained and if effective demand for the non-profit water system continues at its current pace, the water system may be extended along Hwy. 343 as far as Shiloh. Even if it only goes part of the way, it is certain to provide an added stimulus to development, particularly of commercial and residential uses, along its course.

Besides these long standing communities, Whitehall Shores Taylors' Beach, and Texaco Beach are likely to grow in residential development because of Camden's relatively low tax base and its proximity to both Elizabeth City and the North Carolina Outer Banks.

The Land Classification Map in Section III above, page 54, shows areas which are anticipated for change in the next five to ten years. Consistent with the policies which it illustrates, the changes increase the "cluster" pattern already unfolding in Camden County.

Underlying that map is a land development theme, in which the three major communities become more different in the next ten years since they will be facing different pressures. South Mills, as noted, faces the impacts of the new highway around it. Camden Community will be the focus of population migration and commercial development, Shiloh will still be the agricultural heart of the County. Without renewed financing, Camden Point Shores may return to its natural state.

While these changes are anticipated, population projections outlined above indicate that without a significant stimulator (such as a locally employing light industry), the amount of change over the next 10 years amounts to 571 additional people, approximately 191 families (or housing units), or about 19 housing units per year.

At any rate, the preparation of this land use plan has helped enable the Commissioners to encourage development in these areas of anticipated change so that it is more in keeping with the desires of the citizens of the County.

d. Areas of Environmental Concern.

As noted in Section II, the AEC's in Camden County are public trust waters, estuarine waters, estuarine shorelines, and coastal wetlands (salt marshes). Definitions of these areas, complete with articulated uses to be permitted and not permitted may be found in that section pages 7 through 13. Additional information may be found in the CAMA regulations, 15 NCAC 7H, pages 125 - 136.

Although not recognized by the Office of Coastal Management, wooded swamps are an area of local environmental importance which are also addressed in Section II, page 22.

D. Current Plans, Policies, and Regulations.

This section briefly describes plans, policies and ordinances of Camden County and some of Elizabeth City which relate to land use issues addressed in this Land Use Plan Update.

1. Plans.

Land Use Element, Camden County, 1978.

The Land Use Element was prepared to complement the 1976 CAMA Land Use Plan by delineating basic issues which had been identified by the Citizen's survey in 1976, formulating policies to deal with those issues and establishing objectives for carrying out the policies.

These policies and the objectives designed to implement them would have a substantial impact on Camden County if carried out. Briefly, the policies of the Land Use Element would create a slow orderly pattern of development in Camden County. Major development would occur in the areas referred to as communities, where water service may be available. The policies would encourage light industry, business, and tourist facilities to expand the tax base. The Land Use Element calls for active participation by the County in meeting the stated objectives, such as public acquisition of recreational site(s), location of suitable property for business and industrial uses and promotion of these sites. However, the policies also encourage the conservation of historic sites and the preservation of agricultural and timber land through control of growth.

CAMA Land Use Plan, 1975-1985.

The initial Land Use Plan for Camden County, North Carolina was prepared under the Coastal Area Management Act in 1976 with assistance from the Department of Natural Resources and Community Development (then DNER). The Plan described existing conditions and patterns of land use, identified constraints on land development, estimated future demands, and provided a plan for development based upon a Land Classification system. Particular attention was given to environmental factors, especially fragile areas and potential areas of environmental concern. Also, major emphasis was placed on the role of public participation in the plan-making process.

The 1976 Camden County Land Use Plan Update provided valuable information for this 1981 Update.

Emergency Management Hurricane Evacuation Plan, 1980.

This plan provides for an orderly and coordinated evacuation of residents and visitors in Camden County. It designates the Chairman of the county commissioners as director and controller of all hurricane operations including decisions to institute county-wide increased readiness conditions and other actions. The plan outlines the steps of alerting officials, actual evacuation, sheltering, mass caring and re-entry. The Camden County High School, Grandy Elementary School, and Camden Middle School are designated as Hurricane Evacuation shelters, with Routes 17, 343, 158, and 168 designated as Hurricane Evacuation Routes.

Sketch Development Plan; 1972.

The Camden County Sketch Development Plan was prepared by the Camden County Planning Board in 1972.

The document first identified factors which were expected to influence future growth in Camden County and then outlined the key elements or objectives which should guide County policy. These included agricultural land preservation, concentration of commercial and residential use, development of recreation, and improvement of roads. It illustrated projected land use patterns, including certain areas for cluster development.

Dismal Swamp Master Plan, 1974.

The Division of State Parks prepared a Master Plan for the presently undeveloped Dismal Swamp State Park. The Plan outlines three phases for development. The First Phase has program emphasis on habitats for endangered mammals with limited public use. The major need for this phase is access from a public road. The Second Phase would emphasize Specialized Nature Interpretation Program and nature study. This phase would involve the development of wilderness camping facilities and hiking and interpretative trails. The Third Phase would expand nature interpretation to include short-term visitors (a few hours). The purpose would be to educate visitors regarding unique geological and wildlife characteristics of the swamp. This phase would eventually accommodate 50,000 to 100,000 persons per year or about 400 persons per day.

No time frame for development was indicated in the Plan. The plan was adopted by the Division of State Parks in 1974, but no active implementation is presently being done, according to the Division of State Parks. Implementation of phases one and two would have a small impact on Camden County as the number of visitors would remain fairly low. Implementation of the Third Phase would draw a substantial number of visitors to the area and might spawn some commercial development in the northern portion of the county. This commercial activity would most likely be in the form of gas stations, convenience stores, or restaurants.

Housing Element, Camden County, 1978.

The Housing Element summarized the 1970 Census data regarding housing conditions in Camden County, the status of program to assist persons in obtaining standard housing, the demand for housing and the need for housing assistance. The Housing Element goes on to identify specific objectives towards elimination of substandard housing, encouraging the preservation and upkeep of existing housing stock, and the preservation of historic sites. Strategies for meeting housing needs are outlined and relying mainly on public information efforts regarding programs offered under the Farmers Home Administration and the HUD Section VIII.

At the present time no major efforts are underway to implement the Housing Element by adopting building and housing codes. The impact on Camden County would be significant if adoption of the codes included provision for the removal of vacant dilapidated housing which is a safety hazard and devalues neighboring property. The Housing Element is based upon a very small increase in county population and contains no provisions for stimulating housing developments which would attract new residents.

Community Facilities Plans.

Two plans have been prepared pertaining to community facilities. The first is the Water Resource Management Plan by William F. Freeman Associates (1975) which inventoried existing water distribution and wastewater collection and treatment systems for each county in the Region R. It also made recommendations for future facilities based upon anticipated demand. The plan makes recommendations on expansion of the South Mills Water Association System. The second plan is the Water Facilities Feasibility Study prepared by Moore, Gardner and Associates. This plan also deals with the South Mills Water Association System and the feasibility of expanding to a county-wide water system with the South Mills System serving as a base. Moore, Gardner is currently conducting a study of the feasibility of using river water to meet current and projected demand.

201 Study, 1977.

The city of Elizabeth City has joined with Pasquotank County and Camden County to submit an application for a 201 Facilities Planning Study. This study is the first phase of a 3-part federal program for the development and implementation of wastewater facility plans for the area. The boundaries of the study area were delineated to evaluate important area-wide geographic, demographic and hydrologic considerations and include portions of Pasquotank County and Camden County, as well as the entire Elizabeth City Area.

The purpose of the first phase of this study was to evaluate the wastewater treatment needs within the study boundary area, including the need for additional wastewater treatment, problems of infiltration into the existing sewer collector system in Elizabeth City and suggest the most cost effective solution to deal with the area-wide need and infiltration problems. A later phase of the 201 Facilities Planning program will involve implementation steps to construct the required facilities.

The plan, published in 1977, focuses mostly on Elizabeth City and recommended that Camden County proceed to deal with its wastewater problems through individual septic tanks. Caution was expressed that this recommendation be undertaken in light of the poor soil acceptability in Camden County. It thus recommended that appropriate (alternative and innovative) septic systems be included in any development of considerable density.

The Elizabeth City Land Use Plan, 1977.

The Land Use issues recognized in the plan which may relate to Camden include: impact of population and economic trends, provision of adequate housing and other services, conservation, productive natural resources, protection of important natural resources, protection of cultural and historic resources, citizen participation methods. A list of the goals of this plan include: promote industrial development; balance economic development with environmental protection; establish tourists industry; promote projects that aid toward a more viable community and economic growth; orderly growth with environmental protection; expand recreational opportunities; provide expanded community facilities and services; and city-county cooperation.

The Elizabeth City Open Space and Recreation Plan.

The Open Space and Recreation Plan (Elizabeth City) is a framework through which the city and other institutions, groups, or individuals, can maintain a balance between development and resource management, especially management of the need for adequacy of recreational facilities. The Open Space and Recreation Plan is a reference document for providing adequate and improved opportunities for open space and recreational facilities or activities. Some of the important concerns drawn from this document relating specifically to Camden County are as follows:

Camden County, Pasquotank County and the city need improved or expanded recreational facilities for optimum benefits and economy.

Parks and Recreation for the counties and the city in the area must be a unified effort with sufficient facilities adequately distributed.

There should be continuity of maintenance and operation effort from one jurisdiction to another and within different levels of governmental organization.

Major facilities should be centrally located within the larger population centers with safe and adequate access for all residents.

The counties (Pasquotank and Camden) and the city need a combined major park with diversified facilities.

Existing open space quality of the community should be maintained and improved. In addition, the existing and potential open space areas, such as waterfront areas, need expansion for public use.

A more detailed recreation ordinance policy should be adopted which formally spells out expansion of the membership and the function of the recreation advisory committee to include the city, Pasquotank, Camden, and school representatives to better coordinate recreational programs, activities, and facilities.

The city should establish a definite policy toward improving and expanding recreation opportunities based on several sources including concerns or reports prepared by Camden County.

The city should develop diversified recreational facilities and activities throughout the community and area including cooperation with Camden and Pasquotank counties to develop recreational facilities for county and city residents, including the major park with camping, natural area, beach or swimming areas, sports fields, and other diversified facilities for both counties. The city should provide financial aid in developing a county/city or joint county/city major park facility preferably near the city.

The city and county should consider development of hiking and biking trails along the Pasquotank River to connect with the Dismal Swamp and Highway 17N.

A Camden River Public Use Quarter Committee should be established by the city and counties to coordinate activities and seek implementation funding.

Special events should be sponsored by the County. Use of areas of Machelhe Island (Camden Causeway) for environmental education and nature study area: use of the old oil tank site for open space and recreation purposes.

2. Policies.

Fiscal Policy Regarding 1979 Re-evaluation.

North Carolina law requires that all counties re-evaluate real property at least every eight years. For Camden County this was completed in 1979. For purposes of re-evaluation all cultivated land was grouped into one category and valued at \$1,000 per acre. The current tax rate for Camden County is \$.60 per hundred dollar valuation resulting in a tax of \$6 per acre. For very productive lands this may be considered a reasonable assessment, but for marginal lands a rather high tax. Two people have taken this matter to the State Board of Assessment, but at this time no action has been taken by that Board.

High taxes on marginal farm land tend to encourage conversion of farm land to more intensive uses, such as housing or possibly, industry. At this time, it does not appear that there is a large market for subdivision type development of these cultivated lands, but the taxes might encourage the "hacking" up of marginal farmland for homesites. This could cause rather sprawling, unplanned growth, which would be more detrimental for a planned, controlled subdivision. The 1976 Land Use Plan stated that preservation of farmland was a goal of the County, but this tax valuation would seem to be counter-productive.

3. Ordinances and Regulations.

The format for this section will be a summary of the regulations, and their impact on the development of Camden County.

Camden County Implementation and Permit Enforcement.

This is actually an ordinance to establish the correct procedures for appointing the local permit officer and the procedures for the permit officer to follow in reviewing applications, and issuing minor development permits in Areas of Environmental Concern.

The impact of this regulation should be rather minimal. Such impact would be mostly dependent on the standards put forth in the CAMA Land Use Plan.

Solid Waste Management Rules. (State)

These Rules govern the location of and operation of landfills and other methods of solid waste disposal.

Camden County presently operates a garbage collection program and a sanitary landfill. These rules must be adhered to by the County and prevent contamination of ground and surface water in the vicinity of the landfill. Inspections are made on a regular basis by State officials to ascertain that such regulations are met.

Laws and Rules for Ground Absorption Sewage Disposal Systems of 3000 Gallons or Less Design Capacity. (State)

These laws and rules govern the use of septic tanks for sewage disposal. These laws and rules cover almost all residences, businesses, and institutions in Camden County. The laws are administered by the Health District Environmental Health Division to ensure that septic tanks work properly and do not contaminate local wells, ground water or nearby streams. Privies are also governed by these rules and laws.

These laws and rules have a major impact on the development of Camden County as no central sewage collection and treatment system exists, nor is one likely to be built. The Health Department, in effect, must approve the location of every residence and business in the County with respect to the proper disposal of wastewater. Certain areas of the County are not easily developed with septic tanks.

Zoning Ordinance, Adopted 1972.

Zoning is a legal mechanism for controlling the use of land in accordance with an adopted land use plan. A jurisdiction (in this case, the county) is divided into districts or zones and all land within the same district is subject to the same regulations. Zoning is designed to separate incompatible land uses for the good of the general public. Theoretically, zoning is supposed to implement the land use plan, although frequently the two are never coordinated.

The Camden County Zoning Ordinance sets forth eleven zoning districts, although the present map shows only four of the districts. Most of the land is zoned A-0 Agricultural-Open Space, reflecting the importance of agriculture and forestry to the county's economy. Single family homes are permitted in the zone along existing state roads. It would appear that land zoned A-0 would not be available for subdivision purposes. Some existing developed areas and platted subdivisions are zoned RA 20 Residential Agricultural. This included the Camden Point Shiloh-Texaco Beach Area. These areas are not supposed to include mobile homes, although some are permitted by the action of the Board of Adjustment. The RA 20 (MH) district holds the same design standards, but permits mobile homes on individual lots. This district is located in small scattered areas, mostly in the northern portion of the County. The Highway Commercial District stretches from the Pasquotank River Bridge for about a mile with small areas of commercial at the intersection of NC 343 and US 158.

Assuming that the current trend of slow or no growth continues, the zoning pattern would probably show additional scattered RA 20 (MH) zones with pressure on the Board of Adjustment to permit mobile homes in other areas.

Subdivision Regulations.

Subdivision regulations govern the division of land into lots or tracts for building purposes. They set standards for the design of streets, lots, water and sewer systems and other standards necessary for the protection of the public health, safety, and welfare.

If properly enforced, subdivision regulations should encourage the development of well-designed subdivisions with adequate improvements, such as roads. The design standards calling for a maximum length of a cul-de-sac of 600 feet and a maximum block length of 1500 feet should create better circulation patterns and promote well-thought-out designs instead of the common situation of stringing houses out along existing roads or putting in one long dead-end road with houses on one or both sides.

Flood Ordinance.

The County Board of Commissioners passed a Flood Insurance Land Use Ordinance in November, 1973, in compliance with the National Flood Insurance Program. The Planning Board has the responsibility for delineating or assisting in the delineation of areas that are special flood hazard areas. Any new or substantially improved structures located within the flood hazard area must record with the Planning Board the elevation of the lowest floor of the structure. The main purpose of the program is to encourage construction above the 100-year flood level.

2. Means for Enforcement of all Existing Local Land Use Regulations.

The Zoning Ordinance and subdivision regulations are enforced by the County Planning Board and Board of Adjustment.

The building code is the state building code and is enforced by the County Code on behalf of the Town and the County.

Septic tank regulations are those fostered by the State and enforced by the District Health Department.

The Flood Plain Ordinance is administered by the local Permit Officer.

Environmental impact regulations, including major CAMA permits, are administered by the State; minor CAMA permits are administered by the local (county) permit officer.

Others listed in the CAMA guidelines for land use planning, but not applicable to Camden County include: municipal subdivision regulations, sedimentation regulations and other codes or regulations.

3. Relevant State and Federal Regulations Affecting the Coastal Land and Water Resources.

See attached list provided by the Department of Natural Resources and Community Development.

STATE DEVELOPMENT REGULATIONS

Agency	Licenses and Permits
Department of Natural Resources and Community Development	<ul style="list-style-type: none"> - Permits to discharge to surface waters or operate wastewater treatment plants or oil discharge permits; <u>NPDES</u> Permits, (G. S. 143-215)
Division of Environmental Management	<ul style="list-style-type: none"> - Permits for septic tanks with a capacity over 3,000 gallons/day (G. S. 143-215.3). - Permits for withdrawal of surface or ground waters in capacity use areas (G. S. 143-215.15). - Permits for air pollution abatement facilities and sources (G. S. 143-215.108). - Permits for construction of complex sources; e. g. parking lots, subdivisions, stadiums, etc. (G. S. 143-215.109). - Permits for construction of a well over 100,000 gallons/day (G. S. 87-88).
Department of Natural Resources and Community Development Office of Coastal Management	<ul style="list-style-type: none"> - Permits to dredge and/or fill in estuarine waters, tidelands, etc. (G. S. 113-229). - Permits to undertake development in Areas of Environmental Concern (G. S. 113A-113). <p>NOTE: Minor development permits are issued by the local government.</p>

APPENDIX CONTINUED -

Department of Natural Resources and
Community Development
Division of Earth Resources

- Permits to alter or construct a dam (G. S. 143-215.66).
- Permits to mine (G. S. 74-51).
- Permits to drill an exploratory oil or gas well (G. S. 113-381).
- Permits to conduct geophysical exploration (G. S. 113-391).
- Sedimentation erosion control plans for any land disturbing activity of over one contiguous acre (G. S. 113A-54).

Department of Natural Resources and
Community Development
Secretary of NRCD

- Permits to construct an oil refinery

Department of Administration

- Easements to fill where lands are proposed to be raised above the normal high water mark of navigable waters by filling (G. S. 146.6 (c)).

Department of Human Resources

- Approval to operate a solid waste disposal site or facility (G. S. 130-166.16).
- Approval for construction of any public water supply facility that furnishes water to ten or more residences (G. S. 130-160.1).

FEDERAL DEVELOPMENT REGULATIONS

Agency	Licenses and Permits
Army Corps of Engineers (Department of Defense)	<ul style="list-style-type: none"> - Permits required under Section 9 and 10 of the Rivers and Harbors of 1899; permits to construct in navigable waters. - Permits required under Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972. - Permits required under Section 404 of the Federal Water Pollution Control Act of 1972; permits to undertake dredging and/or filling activities.
Coast Guard (Department of Transportation)	<ul style="list-style-type: none"> - Permits for bridges, causeways, pipelines over navigable waters; required under the General Bridge Act of 1946 and the Rivers and Harbors Act of 1899. - Deep water port permits.
Geological Survey Bureau of Land Management (Department of Interior)	<ul style="list-style-type: none"> - Permits required for off-shore drilling. - Approvals of OCS pipeline corridor rights-of-way.
Nuclear Regulatory Commission	<ul style="list-style-type: none"> - Licenses for siting, construction and operation of nuclear power plants; required under the Atomic Energy Act of 1954 and Title II of the Energy Reorganization Act of 1974.

Federal Energy Regulatory Commission

- Permits for construction, operation and maintenance of interstate pipelines facilities required under the Natural Gas Act of 1938.
- Orders of interconnection of electric transmission facilities under Section 202 (b) of the Federal Power Act.
- Permission required for abandonment of natural gas pipeline and associated facilities under Section 7C (b) of the Natural Gas Act of 1938.

E. Constraints: Land Suitability

In accordance with the CAMA regulations, the following is a brief analysis of the general suitability of the undeveloped lands within the County for development, with consideration given to factors of physical limitations for development, fragile areas, and areas with resource potential. Maps for these factors are presented in Section II to illustrate policy development. The analysis presented here plus related sections of policy discussion were the basis for the design of the Land Classification Map.

1. Physical Limitations for Development.

The following areas were identified as likely to have conditions making development costly or causing undesirable consequences if developed:

a. Hazard Areas.

As shown on the Hazardous Areas Map, page 15, hazards in Camden County consist of flood prone areas; construction of US 17 North; fuel storage tanks in South Mills; unpermitted dumps; the railroad along Highway 158; the county landfill; and the Coast Guard Air Station in Pasquotank County.

Flood-prone areas shown on the map have a 1 in 100 chance on the average of being inundated during any year. As a rule, development should either stay away from those areas or be undertaken so as to withstand the likelihood of inundation.

Most of these hazards are discussed in more detail and also mapped under the discussion of land use incompatibility problems, above, page 91.

b. Areas with Soil Limitations.

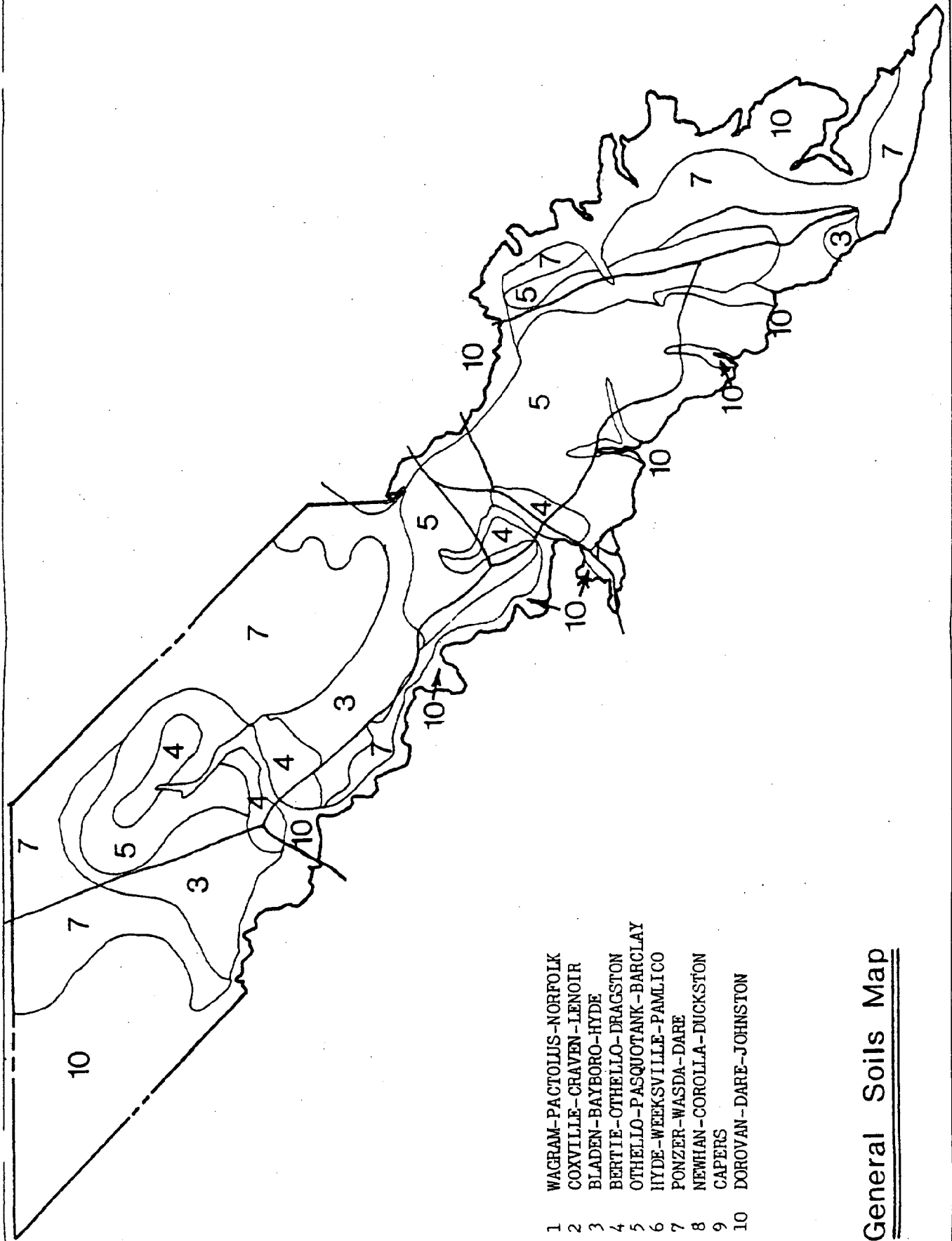
Pages 108 and 109 show the basic information regarding soil limitation that was set forth in the 1976 Land Use Plan. This information was provided by the Soil Conservation Service of the USDA as part of their technical assistance to the Camden County Board of the Albermarle Soil and Water Conservation District. The only data available is a general soils map for the County, no specific soils survey has been done. More detailed soils analysis is not scheduled until 1982.

As shown on the General Soils Map, page 108, approximately 54% of the County is covered by the Ponzer-Pamlico Association which is a very wet soil with a high water table, in many areas inundated much of the year. These areas are generally unsuitable for development even if the water is drained off. The last column of page 109 indicates the poor drainage characteristics of the general soils of the County.

High water table and the shrink-swell characteristics of the soil are two other conditions that should be taken into consideration when foundations for structures are being considered. Page 109 gives severity of limitation for foundations under the column entitled Major Factors Affecting Selected Use. As shown on that chart, many areas of Camden County pose severe constraints for any construction of large buildings. Elvis Graves of the Camden SCS office reported that the three schools in the county all have problems due to the soils, especially the high water table. The Middle School is reported to be the worst problem. Any possible location of industry in Camden County should be carefully studied with a detailed soil analysis.

The problems caused by soils in regard to septic tank filter fields affect all residences in Camden County as no central sewer system is available. In discussion with Elvis Graves, he pointed out that the soils are wettest towards the southern end of the County. His opinion is that the best soil in the County is around the Camden community. In discussion with Mr. Pierce and Mr. S.V. Squires of the Albermarle Health District, it was learned that extra efforts are frequently needed to make septic tanks work in the area. These efforts include ditching to lower the water table, excavation of poor soil (clay) and replacement with soils which will percolate properly, and installation of longer drain fields to spread the effluent over larger areas. In addition, lots which are to contain both a well and a septic tank must be at least 40,000 square feet in size instead of the 20,000 square feet required in more favorable soils. Despite the poor soil, no well contamination has been reported by the Health Department.

The first column of page 109 indicates the limitation of soils for septic tank waste disposal. Again, this is general information and is useful for broad planning purposes. Specific site analysis by the county sanitarian prior to approval of a septic tank system should be conducted.



General Soils Map

TABLE 1
INTERPRETATIVE TABLE FOR GENERAL SOIL MAP
SECTION 8 LAND DEVELOPMENT PROJECT
August 25, 1974

RAIINGS AND LIMITATIONS BASED ON OFFICIAL AGRICULTURAL SERIES DESCRIPTIONS-TABLES PREPARED BY SOIL CONSERVATION SERVICE

Soil Series	LIMITATIONS FOR			SUITABILITY FOR		SOIL		Flood Hazard/		MAJOR FACTORS AFFECTING SUITABILITY FOR		Corrosivity	Traffic Support Capacity (15-30')	Drainage Class
	Recreation	Public	Other	General Agriculture	Forestry	Aspiration	Drainage	Rating	Rating	Water Table	Soil	Soil		
1. Silt.	Mod.	Sev.	Silt.	Good	Good	1. UGAND	None	Deep	Low	Mod. Rapid	High	Low	Silt.	U. Dr.
2. Silt.	Sev.	Sev.	Mod.	Fair	Fair	2. FACTOL	None	Deep	Low	Mod. Rapid	High	Low	Silt.	Mod. U. Dr.
3. Silt.	Silt.	Silt.	Silt.	Good	Good	3. CORVILLE	None	Deep	Low	Mod. Rapid	High	Low	Silt.	U. Dr.
4. Silt.	Sev.	Sev.	Sev.	Fair	Fair	4. CRAYEN	None	Deep	Low	Mod. Rapid	High	Low	Silt.	U. Dr.
5. Silt.	Mod.	Mod.	Sev.	Good	Good	5. LEMOIS	None	Deep	Low	Mod. Rapid	High	Low	Silt.	U. Dr.
6. Silt.	Sev.	Sev.	Sev.	Fair-Good	Good	6. BLADEN	Common	Deep	Low	Mod. Rapid	High	Low	Silt.	U. Dr.
7. Silt.	Sev.	Sev.	Sev.	Fair-Good	Good	7. BAYBOND	Common	Deep	Low	Mod. Rapid	High	Low	Silt.	U. Dr.
8. Silt.	Sev.	Sev.	Sev.	Good	Good	8. HYDE	Common	Deep	Low	Mod. Rapid	High	Low	Silt.	U. Dr.
9. Silt.	Sev.	Sev.	Sev.	Fair-Good	Good	9. BENTLE	Common	Deep	Low	Mod. Rapid	High	Low	Silt.	U. Dr.
10. Silt.	Sev.	Sev.	Sev.	Good	Good	10. OTHELLO	Fonding	Deep	Low	Mod. Rapid	High	Low	Silt.	U. Dr.
11. Silt.	Sev.	Sev.	Sev.	Good	Good	11. OMACSTON	Fonding	Deep	Low	Mod. Rapid	High	Low	Silt.	U. Dr.
12. Silt.	Sev.	Sev.	Sev.	Fair	Fair	12. OTHELLO	Fonding	Deep	Low	Mod. Rapid	High	Low	Silt.	U. Dr.
13. Silt.	Sev.	Sev.	Sev.	Good	Good	13. PASQUETAN	Fonding	Deep	Low	Mod. Rapid	High	Low	Silt.	U. Dr.
14. Silt.	Sev.	Sev.	Sev.	Good	Good	14. SANCAY	Fonding	Deep	Low	Mod. Rapid	High	Low	Silt.	U. Dr.
15. Silt.	Sev.	Sev.	Sev.	Good	Good	15. HYDE	Common	Deep	Low	Mod. Rapid	High	Low	Silt.	U. Dr.
16. Silt.	Sev.	Sev.	Sev.	Good	Good	16. VALLEYVILLE	Fonding	Deep	Low	Mod. Rapid	High	Low	Silt.	U. Dr.
17. Silt.	Sev.	Sev.	Sev.	Fair	Fair	17. PANDLO	Common	Deep	Low	Mod. Rapid	High	Low	Silt.	U. Dr.
18. Silt.	Sev.	Sev.	Sev.	Fair-Good	Good	18. FONZIE	Common	Deep	Low	Mod. Rapid	High	Low	Silt.	U. Dr.
19. Silt.	Sev.	Sev.	Sev.	Fair-Good	Good	19. VASIA	Common	Deep	Low	Mod. Rapid	High	Low	Silt.	U. Dr.
20. Silt.	Sev.	Sev.	Sev.	Fair	Fair	20. DANE	Common	Deep	Low	Mod. Rapid	High	Low	Silt.	U. Dr.
21. Silt.	Sev.	Sev.	Sev.	Fair	Fair	21. KEMAN	None	Deep	Low	Mod. Rapid	High	Low	Silt.	U. Dr.
22. Silt.	Sev.	Sev.	Sev.	Fair	Fair	22. CORDELLA	Common	Deep	Low	Mod. Rapid	High	Low	Silt.	U. Dr.
23. Silt.	Sev.	Sev.	Sev.	Fair	Fair	23. DUCSTON	Common	Deep	Low	Mod. Rapid	High	Low	Silt.	U. Dr.
24. Silt.	Sev.	Sev.	Sev.	Fair	Fair	24. CAPTES	Common	Deep	Low	Mod. Rapid	High	Low	Silt.	U. Dr.
25. Silt.	Sev.	Sev.	Sev.	Fair	Fair	25. DOROVAN	Common	Deep	Low	Mod. Rapid	High	Low	Silt.	U. Dr.
26. Silt.	Sev.	Sev.	Sev.	Fair	Fair	26. DARE	Common	Deep	Low	Mod. Rapid	High	Low	Silt.	U. Dr.
27. Silt.	Sev.	Sev.	Sev.	Fair	Fair	27. JUDISTON	Common	Deep	Low	Mod. Rapid	High	Low	Silt.	U. Dr.

DEFINITIONS OF SOIL LIMITATIONS

None to Slight: Soils have properties favorable for the intended use. Limitations are so minor that they can be overcome by normal maintenance.

Moderate: Soils have properties moderately favorable for the intended use. Limitations can be overcome by modified maintenance, such as planting, design, or special maintenance.

Severe: Soils have one or more properties unfavorable for the intended use. Limitations are difficult and costly to modify or overcome, requiring major soil reclamation, special design, or intense maintenance.

For some uses an additional breakdown of the above ratings may be warranted:

Very Severe: Soils have one or more properties so unfavorable for the intended use that the soil is practically unusable. The soil material to be removed, replaced, or completely modified.

ADDITIONAL NOTES:

1. Silt: Silt - less than 0.0025 mm. (0.00025 in.)
 Mod. Silt - 0.0025 to 0.00425 mm. (0.00025 to 0.000425 in.)
 Severe Silt - 0.00425 to 0.0075 mm. (0.000425 to 0.00075 in.)
 Very Severe Silt - 0.0075 to 0.015 mm. (0.00075 to 0.0015 in.)

2. Clay: Clay - more than 0.0025 mm. (0.00025 in.)
 Mod. Clay - 0.0025 to 0.00425 mm. (0.00025 to 0.000425 in.)
 Severe Clay - 0.00425 to 0.0075 mm. (0.000425 to 0.00075 in.)
 Very Severe Clay - 0.0075 to 0.015 mm. (0.00075 to 0.0015 in.)

3. Organic: Organic - less than 10% organic matter in the top 10 cm. (4 in.)
 Mod. Organic - 10% to 20% organic matter in the top 10 cm. (4 in.)
 Severe Organic - 20% to 30% organic matter in the top 10 cm. (4 in.)
 Very Severe Organic - more than 30% organic matter in the top 10 cm. (4 in.)

4. Salinity: Salinity - less than 4 dS/m. (4 mmhos/cm)
 Mod. Salinity - 4 to 8 dS/m. (4 to 8 mmhos/cm)
 Severe Salinity - 8 to 16 dS/m. (8 to 16 mmhos/cm)
 Very Severe Salinity - more than 16 dS/m. (16 mmhos/cm)

5. Sodicity: Sodicity - less than 15% exchangeable sodium
 Mod. Sodicity - 15% to 30% exchangeable sodium
 Severe Sodicity - 30% to 60% exchangeable sodium
 Very Severe Sodicity - more than 60% exchangeable sodium

6. Shrinkage: Shrinkage - less than 10% shrinkage
 Mod. Shrinkage - 10% to 20% shrinkage
 Severe Shrinkage - 20% to 30% shrinkage
 Very Severe Shrinkage - more than 30% shrinkage

7. Frost: Frost - less than 10% frost
 Mod. Frost - 10% to 20% frost
 Severe Frost - 20% to 30% frost
 Very Severe Frost - more than 30% frost

8. Erosion: Erosion - less than 10% erosion
 Mod. Erosion - 10% to 20% erosion
 Severe Erosion - 20% to 30% erosion
 Very Severe Erosion - more than 30% erosion

9. Compaction: Compaction - less than 10% compaction
 Mod. Compaction - 10% to 20% compaction
 Severe Compaction - 20% to 30% compaction
 Very Severe Compaction - more than 30% compaction

10. Drainage: Drainage - less than 10% drainage
 Mod. Drainage - 10% to 20% drainage
 Severe Drainage - 20% to 30% drainage
 Very Severe Drainage - more than 30% drainage

11. Corrosion: Corrosion - less than 10% corrosion
 Mod. Corrosion - 10% to 20% corrosion
 Severe Corrosion - 20% to 30% corrosion
 Very Severe Corrosion - more than 30% corrosion

12. Traffic Support: Traffic Support - less than 10% traffic support
 Mod. Traffic Support - 10% to 20% traffic support
 Severe Traffic Support - 20% to 30% traffic support
 Very Severe Traffic Support - more than 30% traffic support

13. Drainage Class: Drainage Class - less than 10% drainage class
 Mod. Drainage Class - 10% to 20% drainage class
 Severe Drainage Class - 20% to 30% drainage class
 Very Severe Drainage Class - more than 30% drainage class

c. Water Supply Areas.

Most of the residences in Camden County obtain water from ground wells which tap into one of three aquifers which yield potable water; the water table aquifer, the Upper Yorktown aquifer, and the Lower Yorktown aquifer. Of these, the first two are shallow, while the latter is deeper.

The principle water source in north eastern North Carolina is from wells drawing water from the Upper Yorktown aquifer and water table aquifer.

The quality of the Upper Yorktown aquifer and water table aquifer varies. The most severe problems with ground water are hardness, iron concentration and chloride or salt content. The quality of the water table aquifer, which is 5 to 13 feet below the surface and in places 130 feet thick, is generally more acceptable for domestic purposes.

Water is also drawn from the deeper source, but its chemical makeup in this area renders it useless for domestic or industrial purposes without very extensive treatment. Also clays of considerable thickness and low permeability retard the verticle recharge of these aquifers and thus limit withdrawals.

Bob Cheek of the Ground Water Division of the Department of Human Resources suggested that a large user could use a multi-screen well system, which would blend water from all three aquifers to increase yield. However, large industrial water users would not be an appropriate development in the County as a large, continued withdrawal of water from the aquifers could result in salt water intrusion of the aquifers.

Recharge of the shallower aquifers is primarily through precipitation via the water table aquifer. Deeper aquifers are recharged via vertical/horizontal leakage from adjacent aquifers through subsurface clays. The recharge rate depends upon permeability and thickness of subsurface sediments, as well as hydraulic head, but generally is very slow in the aquifers of northeastern NC because of the thickness and low permeability of surface clays. As pointed out by the Camden Development Advisory Committee, recharge of the aquifer has been deminished by drainage in the northern part of the County for agricultural and forestation purposes. This, with North Carolina's winter drought, leaves the ground water supply lower than normal.

Surface waters are classified by the State of North Carolina according to their suitability for certain uses, including domestic consumption, bathing, food processing and shellfish harvesting. These classifications are divided into fresh and salt water.

There are no known point sources of pollution in Camden County, except the discharge of the remains from the water treatment plant of the South Mills Water Association. Non-point sources of the pollution are mainly those resulting from agricultural activities, such as fertilizer and insectides. At this time, these have not been a major cause of eutrophication of the rivers. Eutrophication is the over-nourishment of the water caused by agricultural runoff. Such problems with algae bloom as experienced in the Chowan River are a potential problem in Camden County.

d. Areas Where the Predominant Slope Exceeds 12 Percent.

The topography of the County is very flat with no slopes of 12% or more. Most of the constraints to development, then, come from soil characteristics and flood proneness, rather than inclines and the additional expense of mudslide and extraordinary erosion protection.

2. Fragile Areas.

Areas which could easily be damaged or destroyed by inappropriate or poorly planned development in Camden County include: the AEC's; wooded swamps; areas which protect remnant species; water resources; erodible shoreline; historic sites; and air resources.

Many of these areas, primarily the AEC's, are shown on the Fragile Areas Map, page 8. A thorough discussion of the AEC's may be found under policies, Section II, page 7.

Wooded Swamps are discussed in Section IV above, page 88, under analysis of existing land use. The policy section, page 22 also directs specific statements toward the protection of this locally valuable resource.

Areas which protect remnant species were defined in the 1976 Land Use Plan as potential areas of environmental concern. While none of these areas are designated as AEC's in Camden County, there are still areas that sustain five species of native plants or animals designated as remnant by the North Carolina Natural Heritage Program.

The CAMA regulations regarding AEC's provide management objectives for officially designated areas which protect remnant species: to protect the habitat conditions that are necessary to the continued survival of threatened and endangered native plants and to minimize land use impacts that might jeopardize these conditions (15 NCAC 7H, page 7-34 and 7-35).

The Black Bear lives in the wooded swamps of Camden County. The Department of Natural Resources and Community Development estimates that 4,000 to 5,000 square acres per bear (6 square miles) is required. Bears are threatened, due to habitat destruction and road development, since roads lead to road kills, and because bears need remoteness from humans. Bears have a liking for peat bogs, also available in northeastern Camden County.

The major bear habitat in Camden exists in the southeast and northwest parts of the County. Most previous habitats in the middle of the county have been taken by human activities. The Department of Natural Resources and Community Development recommends that a corridor of bear habitat be preserved between the two larger remaining areas.

Interviews with the NC Natural Heritage Program reported several sitings of other rare species in Camden County which are reflective to the natural setting there. These include the Red Cockaded Woodpecker; the Wing Seed Box Marsh (Plant, *Ludwigia Alata*), Atlantic White Cedar (plant community); ferns -- species cluster found in Dismal Swamp and in the Typelo Swamp.

Additional natural resources which qualify locally as fragile areas, though not shown on the Fragile Areas Map itself, page 8, include proposed conservation areas, as noted in North Carolina Water Resources Framework: Proposed Projects and Policy (NC NRCD, 1977). This document shows designated conservation areas, including natural areas, wilderness, extension areas, and state parks in the northern and southeastern tips of the county. It also designates the area north of Hwy 158 as a Water Evaluation Area, and the Elizabeth City Bridge to Belcross as a sewer by-pass area.

As noted in the policy discussion in Section II, conservation areas may be used for passive recreational uses. Under the NC Water Resources Framework, several areas in the County have been recommended for such activity. They include the Pasquotank River from South Mills to the Hwy 158 bridge, as a water trail for canoes; a wooded trail just north of and parallel to Hwy 158 to Belcross and turning north for about 3 miles as a preserved corridor; the creek feeding the North River, south from Hwy 34 to the point where the Barco SW and Elizabeth City SE quad maps meet, as a natural and scenic river; and the North River itself, south into the Pamlico River, as a designated public fishing stream.

Thus, Camden has significant potential as a conservation and recreational area. Conscientious use of these areas is not only consistent with the rural nature of the County but with the underlying purposes of this Land Use Plan Update.

The next type of Fragile area in Camden County is its' erodible shoreline. In 1975 SCS made a broad study of shoreline erosion in the coastal counties using aerial photographs and on-site measurements. Of the 38.8 miles of shoreline studied (around the southern end of the County), 32 miles show signs of erosion. Camden County appears to have some erosion problems, but this situation is not serious. The area studied would now fall into the Estuarine Shoreline AEC (see Fragile Areas Map) and therefore a CAMA development permit is required for development. This should help since before development occurs, the matter of impact upon erosion will be considered and mitigation action required.

Historic sites and structures represent another resource in Camden County which could be damaged by inappropriate development. While no official survey of these properties has been undertaken, several have been sited and a few listed. See the section above regarding Cultural and Institutional Land Use, page 82 for discussion.

Finally, the air in this rural county is a fragile resource. Mr. Vic Copeland of the NC NRCD Field Office in Washington, NC reported that particulates in Camden County's air have been measured at 48 to 59 microgram per cubic meter over the last five years. This does not represent a significant level of air pollution.

Presently no point sources of air pollution exist in Camden County. There are two major sources of non-point pollution; automobile exhaust and smoke from burning for land clearing operations. Automobile exhaust is not a very significant problem as traffic is presently not very heavy. However, during the fall of 1980, the open burning for land clearing purposes caused numerous problems regarding smoke hanging in the air. In December, 1980, NC NR & CD banned the further setting of fires for land clearing purposes and required that those presently burning take all possible steps to extinguish the flames. Examples of the latter form of pollution are well known in the area since the burning of wind-rows in Northern Pasquotank County has caused air pollution for several months.

The County has none of the following: sand dunes along the outer banks; ocean beaches; areas containing unique geological formations; and registered natural landmarks.

3. Areas with Resource Potential.

As noted in the analysis of existing land use above, pages 87 - 88, Camden County is generally productive for agriculture and forestry lands. Without a detailed soils analysis and a site specific analysis of production practices and productivity itself, it is impossible to designate areas as "prime" for farms or commercial forestation.

Minerals have not played a significant role as productive resources. There are 5 closed sand mines in Camden. In 1976, five of the sand mines were still operating and produced 5,000 tons of sand with a market value of \$7,000 (see page 114). This lack of economic importance of minerals in Camden's past may not be true in the future.

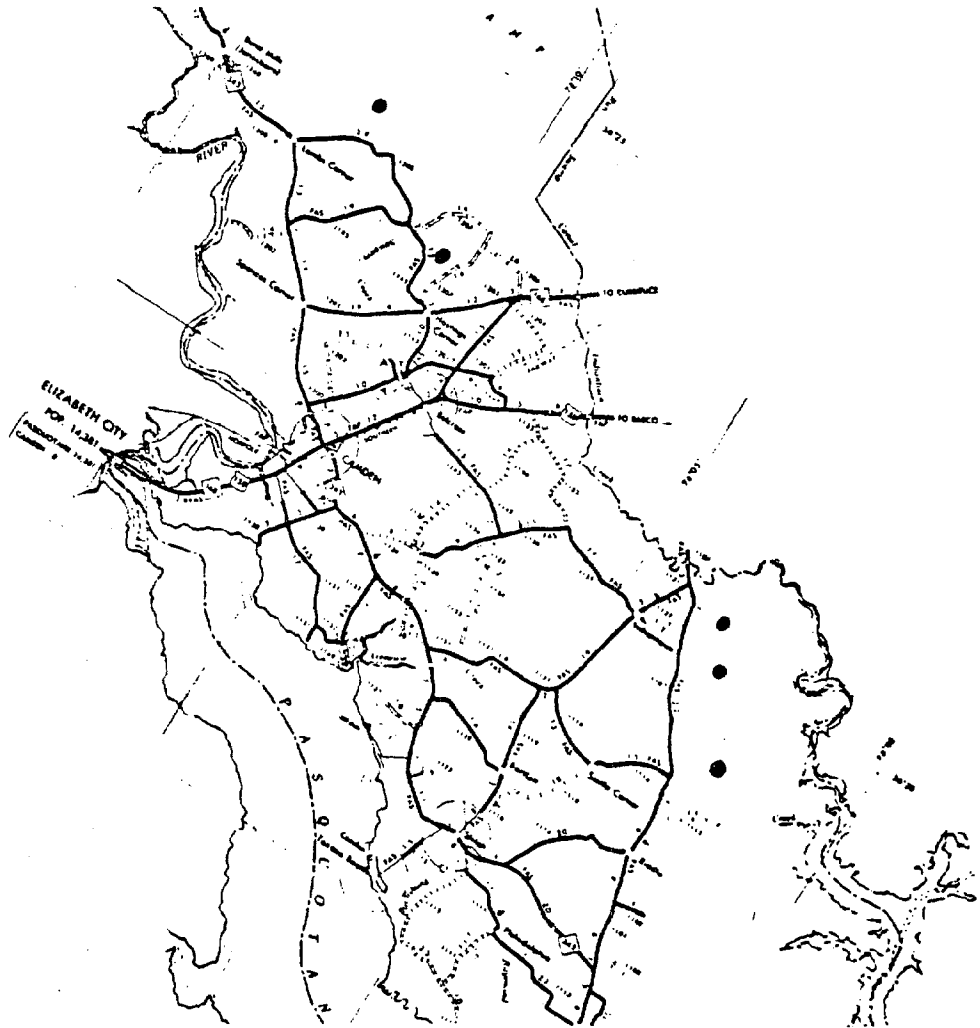
As shown in NRCD's 1980 Report on Peat Concentrations, about 1/3 of North Carolina's 100 square mile Dismal Swamp peat deposit lies in Camden County. This means that between 17 and 25 million tons of moisture-free peat may be present in the county. The peat varies in thickness, water content, and depth below the surface, but is generally thought to be of good quality with as high as a 10,000Btu/lb heat rating. Were all peat to be available, Camden would have the equivalent of 13 to 19 million tons of coal or 54 to 80 million barrels of oil. The bulk of the reserve is believed to lie beneath the state-owned lands in the northern part of the county.

Parks and outdoor recreation sites are a potentially valuable productive resource to Camden County. Several of these have been addressed in the discussion of fragile areas, page 85.

CAMDEN COUNTY



0 1 2 3 4 miles

Sand Deposits

Source: Camden County Land Use Plan: 1975-1985

The most outstanding undeveloped resource is the Dismal Swamp, which has its own Master Plan for development of selected sections to provide limited success for visitors for camping, hiking, and nature study. Full implementation of the plan could bring 50,000 to 100,000 visitors to the area per year.

The economic importance of fisheries in Camden County is small. The issues of sport fisheries and gamelands are not considered here due to their small impacts.

F. Constraints: Capacity of Community Facilities.

This section describes selected community facilities in terms of capacity, extent of utilization, and implications for development in the future.

1. Existing Water Service System.

As noted above under Water Sources, page 110, Camden County's primary source of water is from ground wells. Two-thirds of the County is on private wells, with the remainder served by a community, non-profit water system around the village of South Mills.

Founded in 1962, the South Mills Water Association is financed by loans from the Farmers Home Administration and user fees. Operating on a subscription arrangement, it has expanded to serve 1,023 metered residential and agricultural customers.

The system is fed by nine ground wells and stored in two elevated tanks, one in Pasquotank of 100,000 gallons, and one in the village of 75,000, and one ground storage tank at the water treatment plant in the village (100,000 gallons). The pumping capacity is 225,000 gallons per day.

Since the summer of 1980, the system has been operating at full capacity. This led to the replacement of well # 1 in August, and the initiation of studies regarding using river water in October. In May, the studies revealed that this latter alternative is too costly, and the search for additional wells was begun. Thus, the recommendation by William F. Freemant Associates in 1976 that two additional wells be added by 1985 and one additional well by the year 2000 still holds.

Preliminary sketches of expanding down Hwy 343 to Shiloh have been completed, but are constrained because of lack of water.

2. Wastewater Treatment.

Camden County does not have a community or municipal sewer system. All sewage is presently being treated by individual septic tanks as required by the County health department or privies. Based on 1970 Census Bureau information there were at that time 1,221 families using septic tanks in the County and 1,723 families without access to a central sewer system.

Only the three schools use septic tanks with greater than 3,000 gallons design capacity. Each have additional systems to operate effectively. The Middle School is a land based demonstration project monitored by NCSU.

Given the poor soils of the County, and the already heightened requirements for additional square footage for residential septic installment, continued reliance on traditional septic systems is likely to propose undue constraint to development, particularly in the areas of population growth (Camden County).

3. Schools.

Camden County's school system has one elementary, one middle, and one high school all located in the Camden community.

SCHOOL	DESIGN CAPACITY
Grandy	475
Middle	600
High	500
TOTAL	1,575

1980 enrollment is 1,262, or 80% of capacity. In line with recent demographic changes, enrollment is predicted to drop by 1985 to 1,149, or 73% of capacity. Accordingly, there are no plans to build additional capacity at this time, although the new requirement for education of the handicapped will necessitate some renovation.

4. Landfill.

The County has one landfill facility in the south eastern section of the County (see Hazard Areas Map, page 15). Regulated by the NC Department of Human Resources which inspects the site regularly, the capacity of the current site is adequate for 15 to 20 years. Additional capacity is available nearby when needed.

As noted in the analysis of existing land use, there is a potential problem with the high water table at the landfill site. According to Mr. Bill Morris of DHR, Greenville, NC, this problem may be corrected. The remoteness of the site minimizes the landfill's impact on surrounding land uses, a particular advantage of the existing site.

5. Recreation Facilities.

There are no recreational facilities located in the County although the Commissioners do pay a \$10,000 per year fee to Elizabeth City to provide access of Camden citizens to their program.

Discussion of recreation and conservation areas owned by the state, particularly the Dismal Swamp State Park, is provided under resource production page 34.

6. Roads.

The major roads are US 17, US 158, and NC 343. Maintenance and improvement is the responsibility of the North Carolina Department of Transportation.

The Department is currently widening US 17 from South Mills to the NC/VA border. According to DOT engineer, Bill Marley, access to the highway will be just north of where the canal intersects with US 17, and at SR 1233, 1231, and 1226 (see page 119).*

Based on 1974 information compiled by the Department of Transportation the section of US 17 between South Mills and the North Carolina-Virginia line had an ADT of 3,800 vehicles a day. Based on the same 1974 information US 158 between Elizabeth City and the Camden Community had an ADT of 8,000 vehicles per day. Also serving the County are NC 343 and NC 168. 343 is serving the area between South Mills, Camden, and the Shiloh/Old-Trap area of the County. This facility based on 1974 information had a maximum ADT of 1,500 vehicles in the area south of the Camden Community with 1,000 between Camden and South Mills. Taking into consideration the slow growth history of the county and the fact that many citizens have indicated they wish the county to remain an essentially rural area all of the above mentioned facilities should be adequate to serve the needs of residents and others for the ten-year planning period.

According to the DOT summary of paved and unpaved mileage comprising the state highway system (1978), Camden had 62.4% (92.4 miles) of its state secondary road system (148.16 miles) paved, with 37.6% (55.76 miles) unpaved. All of its 44.28 miles of state primary roads are paved. This renders 71% (136.72) of the total highway system (192.48 miles) in Camden paved (DOT summary, page 390).

In 1978, the state spent \$320,000 in Camden County for maintenance and construction in 1978, \$72,000 for primary, and \$248,000 for secondary roads. This amounts to \$1,636 per mile of primary road, and \$1,674 per mile of secondary roads (DOT summary, page 388).

*The Commissioners felt that this "limited access" may be detrimental to the economy in South Mills. See Section II, page 42 for related policy statement.

G. Estimated Future Demand.

1. Population.

After comparing several methods of population projection, the following estimates were chosen from the Tables of Population Estimates and Projections reprinted from the Update, North Carolina Population Projections, Office of State Budget and Management, Demographic Research, June, 1980.

Accordingly, the population in Camden is projected as shown below:

Population, Camden County, NC					
Historical Population			Projected Population		
<u>1960</u>	<u>1970</u>	<u>1980*</u>	<u>1985</u>	<u>1990</u>	<u>2000*</u>
5598	5453	5829	6200	6400	6592

*The actual 1980 figure shown here was not used in the state projections. The year 2000 estimate was derived by trending the 1960 through 1990 number shown, rendering a more reasonable estimate than was acquired in other methods.

Trends within the population, by age group, between 1980 and 1990 are as follows:

Age Group	1980		1990		% Change 1980-1990
	#	% tot. pop.	#	% tot. pop.	
0 - 14	1,399	23.89	1,529	23.82	+ 9%
15 - 24	1,085	18.54	863	13.44	-20%
25 - 34	804	13.73	1,043	16.25	+30%
35 - 49	959	16.38	1,273	19.82	+33%
50 - 64	910	15.55	892	13.90	- 2%
65 - +	698	11.92	820	12.77	+17%
TOTAL	5,855	100%	6,420	100%	+10%

As shown in the exhibit above, the population groups 0 - 14, 15 - 34, 35 - 49, and 65+ are expected to grow over the planning period, as is the total population. The age groups 15 - 24 and 50 - 64 are expected to decline as shown. These trends mean that greater demand is likely to be placed upon community facilities (schools) and upon the local economy for jobs and housing, plus increased services for the elderly.

Between 1980 and 1990, the racial population of the county is shown as follows:

PROJECTED CHANGE IN RACIAL COMPOSITION				
	1980		1990	
	#	% tot. pop.	#	% tot. pop.
White	3,786	65%	4,220	66%
Non-white	2,069	35%	2,200	34%
TOTALS	5,855	100%	6,420	100%

Thus, the racial composition is expected to remain virtually constant as the population grows and changes in age distribution.

Changes in number, race, and racial composition are influenced by explained natural increase and migration patterns. According to the 1990 population projections done by the Office of State Budget and Management (April, 1980), the outward migration of the 1960's (-11.95) which was reversed to a 2.74 rate of immigration in the 1970's, will be doubled to 5.44 in the 1980's. The most significant change will occur among the non-white population, as the total outmigration rate of the '70's (-7.59) will be cut in half; the rate of outmigration of non-white males will be reduced by half, and the outmigration of non-white females will be reduced by 80%. The fact that the proportion of population stays constant with such significant changes in migration is not explained by natural increase differences. In fact, the natural increase rates of non-white in Camden County was higher (3.8) than whites (1.5) between 1974 and 1978. If this pattern continues, then the fluctuation proportion of non-whites should increase, unless the overall population is growing fast enough to absorb this difference.

Information for projection of seasonal population was not available. However, during discussions with the County Commissioners it was determined that during the summer months there is presently a negative effect with local citizens traveling to the beach for weekends because of the close proximity to the county. During the fall and winter hunting season there is some impact of hunters on the locality, but specific information was not available.

2. Future Land Needs.

As shown below, Camden County has had a sporadic increase and decrease in population for the past 80 plus years.

CAMDEN COUNTY

Past Population Trends 1900-1980

<u>Years</u>	<u>Population</u>	<u>People</u>	<u>% Increase or Decrease</u>
1900 - 1910	5,474 to 5,640	166 increase	3.0
1910 - 1920	5,640 to 4,382	258 decrease	-4.6
1920 - 1930	4,382 to 5,462	80 increase	1.5
1930 - 1940	5,462 to 5,441	21 decrease	-0.4
1940 - 1950	5,441 to 5,223	218 decrease	-4.0
1950 - 1960	5,223 to 5,598	375 increase	7.2
1960 - 1970	5,598 to 5,453	145 decrease	-2.6
1970 - 1980	5,453 to 5,825	376 increase	7.0

To the contrary, the projections above indicate that during the ten-year planning period, the county may expect to grow at a rather slow rate, approximately 570 persons. This very small expected increase does not place a heavy burden on the land, since it is expected to stimulate little commercial and industrial development. At most, it appears to stimulate need for 208 additional housing units (570 divided by 3.0 persons/unit x 1.098 vacancy rate). As recommended in the new citizen's survey, this amount of existing growth may be readily accommodated inside existing communities or neighborhoods.

Like many other rural areas not expecting development pressures, Camden County could be affected by a sudden increase in commercial forestation, commercial mining of the peat deposit, or large scale development of the platted lots on the 5000 acres of Camden Point Shores. The location of one or two industries near Belcross could dramatically increase employment and thereby accelerate the projected demand for residential and commercial development.

Regardless of the anticipated future, the land in Camden County only has so much capacity to sustain development. As noted in the section on constraints to development, the strongest limitations are with regard to soils, flood proneness, and amount of water available for development.

While there is plenty of vacant land in Camden County, and land near the major highways, much of it has poor development qualities. These should be taken into account on a site by site basis, within the framework of the Land Classification Map above, page 54. In this manner, Camden County can be prepared to handle either the limited growth projected above, or undetermined quantities of corporate or residential development not expected at this time.

3. Community Facilities Demand.

a. Schools.

All three schools in the County's school system are considered to be adequate to handle the future population of the County. In fact, the school officials are presently anticipating a decrease in student enrollment during the ten-year planning period. This trend is reflected in the previous census figures for the elementary school age group.

b. Roads.

The primary road system should be adequate during the planning period. Any improvements are the responsibility of the North Carolina Department of Transportation.

c. Water.

Currently, demand for water from the South Mills Water Association System exceeds its capacity. Industrial development on a small scale would be feasible utilizing this system for a water source, if water can be found in the near future.

V. APPENDIX:

1. Excerpt, 15 NCAC 7H, (page 125).
2. Citizen Survey Questionnaire, November 18, 1980 (page 134).
3. Checklist for Land Use Plan (page 142).
4. Synopsis (page 146).

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Eff. September 9, 1977.

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.0204 AECs WITHIN THE ESTUARINE SYSTEM

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The following regulations in this Section define each AEC within the estuarine system, describe its significance, articulate the policies regarding development, and state the standards for development within each AEC.

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History Note: Statutory Authority G.S. 113A-107(a);

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113A-107(b);

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Eff. September 9, 1977.

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.0205 COASTAL WETLANDS

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(a) Description. Coastal wetlands are defined as any salt marsh or other marsh subject to regular or occasional flooding by tides, including wind tides (whether or not the tide waters reach the marshland areas through natural or artificial watercourses), provided this shall not include hurricane or tropical storm tides.

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Coastal wetlands contain some, but not necessarily all, of the following marsh plant species:

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- (1) Cord Grass (*Spartina alterniflora*),
- (2) Black Needlerush (*Juncus roemerianus*),
- (3) Glasswort (*Salicornia* spp.),
- (4) Salt Grass (*Distichlis spicata*),
- (5) Sea Lavender (*Limonium* spp.),
- (6) Bulrush (*Scirpus* spp.),
- (7) Saw Grass (*Cladium jamaicense*),
- (8) Cat-tail (*Typha* spp.),
- (9) Salt Meadow Grass (*Spartina patens*),
- (10) Salt Reed Grass (*Spartina cynosuroides*).

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Included in this definition of coastal wetlands is "such contiguous land as the Secretary of NRECD reasonably deems necessary to affect by any such order in carrying out the purposes of this Section." [G.S. 113-230(a)]

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(b) Significance. The unique productivity of the estuarine system is supported by detritus (decayed plant material) and nutrients that are exported from the coastal marshlands. The amount of exportation and degree of importance appears to be variable from marsh to marsh, depending primarily upon its frequency of inundation and inherent characteristics of the various plant species. Without the marsh, the high productivity levels and complex food chains typically found in the estuaries could not be maintained.

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Man harvests various aspects of this productivity when he fishes, hunts, and gathers shellfish from the estuary. Estuarine dependent species of fish and shellfish such as menhaden, shrimp,

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flounder, oysters, and crabs currently make up over 90 percent of the total value of North Carolina's commercial catch. The marshlands, therefore, support an enormous amount of commercial and recreational businesses along the seacoast.

The roots, rhizomes, stems, and seeds of coastal wetlands act as good quality waterfowl and wildlife feeding and nesting materials. In addition, coastal wetlands serve as the first line of defense in retarding estuarine shoreline erosion. The plant stems and leaves tend to dissipate wave action, while the vast network of roots and rhizomes resists soil erosion. In this way, the coastal wetlands serve as barriers against flood damage and control erosion between the estuary and the uplands.

Marshlands also act as nutrient and sediment traps by slowing the water which flows over them and causing suspended organic and inorganic particles to settle out. In this manner, the nutrient storehouse is maintained, and sediment harmful to marine organisms is removed. Also, pollutants and excessive nutrients are absorbed by the marsh plants, thus providing an inexpensive water treatment service.

(c) Management Objective. To give highest priority to the protection and management of coastal wetlands so as to safeguard and perpetuate their biological, social, economic and aesthetic values; to coordinate and establish a management system capable of conserving and utilizing coastal wetlands as a natural resource essential to the functioning of the entire estuarine system.

(d) Use Standards. Suitable land uses shall be those consistent with the management objective in this Rule. Highest priority of use shall be allocated to the conservation of existing coastal wetlands. Second priority of coastal wetland use shall be given to those types of development activities that require water access and cannot function elsewhere.

Unacceptable land uses may include, but would not be limited to, the following examples: restaurants and businesses; residences, apartments, motels, hotels, and trailer parks; parking lots and private roads and highways; and factories. Examples of acceptable land uses may include utility easements, fishing piers, docks, and agricultural uses, such as farming and forestry drainage, as permitted under North Carolina's Dredge and Fill Act and/or other applicable laws.

In every instance, the particular location, use, and design characteristics shall be in accord with the general use standards for coastal wetlands, estuarine waters, and public trust areas described in Rule .0204 of this Section.

History Note: Statutory Authority G.S. 113A-107(a);
113A-107(b); 113A-113(d)(1);

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Eff. September 9, 1977; 289
 Amended Eff. January 24, 1978. 290

.0206 ESTUARINE WATERS 292

(a) Description. Estuarine waters are defined in G.S. 113A- 294
 113(b) (2) as "all the water of the Atlantic Ocean within the 295
 boundary of North Carolina and all the waters of the bays, 296
 sounds, rivers, and tributaries thereto seaward of the dividing 297
 line between coastal fishing waters and inland fishing waters, as 297
 set forth in an agreement adopted by the Wildlife Resources 298
 Commission and the Department of Natural Resources and Community 298
 Development filed with the Secretary of State, entitled 'Boundary 299
 lines, North Carolina Commercial Fishing -- Inland Fishing 300
 waters,' Revised to March 1, 1965."

(b) Significance. Estuarine waters are the dominant component 302
 and bonding element of the entire estuarine system, integrating 303
 aquatic influences from both the land and the sea. Estuaries are 304
 among the most productive natural environments of North Carolina.
 They support the valuable commercial and sports fisheries of the 305
 coastal area which are comprised of estuarine dependent species 306
 such as menhaden, flounder, shrimp, crabs, and oysters. These
 species must spend all or some part of their life cycle within 307
 the estuarine waters to mature and reproduce. Of the 10 leading 308
 species in the commercial catch, all but one are dependent on the
 estuary.

This high productivity associated with the estuary results from 310
 its unique circulation patterns caused by tidal energy, fresh 311
 water flow, and shallow depth; nutrient trapping mechanisms; and 312
 protection to the many organisms. The circulation of estuarine
 waters transports nutrients, propels plankton, spreads seed 313
 stages of fish and shellfish, flushes wastes from animal and
 plant life, cleanses the system of pollutants, controls salinity, 314
 shifts sediments, and mixes the water to create a multitude of 315
 habitats. Some important features of the estuary include mud and
 sand flats, eel grass beds, salt marshes, submerged vegetation 316
 flats, clam and oyster beds, and important nursery areas. 317

Secondary benefits include the stimulation of the coastal 319
 economy from the spin off operations required to service 320
 commercial and sports fisheries, waterfowl hunting, marinas,
 boatyards, repairs and supplies, processing operations, and 321
 tourist related industries. In addition, there is considerable 322
 nonmonetary value associated with aesthetics, recreation, and
 education.

(c) Management Objective. To give the highest priority to the 324
 conservation and management of the important features of 325
 estuarine waters so as to safeguard and perpetuate their
 biological, social, aesthetic, and economic values; to coordinate 326

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and establish a management system capable of conserving and utilizing estuarine waters so as to maximize their benefits to man and the estuarine system.

(d) Use Standards. Suitable land/water uses shall be those consistent with the management objectives in this Rule. Highest priority of use shall be allocated to the conservation of estuarine waters and its vital components. Second priority of estuarine waters use shall be given to those types of development activities that require water access and use which cannot function elsewhere such as simple access channels; structures to prevent erosion; navigation channels; boat docks, marinas, piers, wharfs, and mooring pilings.

In every instance, the particular location, use, and design characteristics shall be in accord with the general use standards for coastal wetlands, estuarine waters, and public trust areas described in Regulation .0208 of this Section.

History Note: Statutory Authority G.S. 113A-107(a);
113A-107(b); 113A-113(b) (2);
Eff. September 9, 1977;
Amended Eff. January 24, 1978.

.0207 PUBLIC TRUST AREAS

(a) Description. Public trust areas are all waters of the Atlantic Ocean and the lands thereunder from the mean high water mark to the seaward limit of state jurisdiction; all natural bodies of water subject to measurable lunar tides and lands thereunder to the mean high water mark; all navigable natural bodies of water and lands thereunder to the mean high water level or mean water level as the case may be, except privately-owned lakes to which the public has no right of access; all water in artificially created bodies of water containing significant public fishing resources or other public resources which are accessible to the public by navigation from bodies of water in which the public has rights of navigation; and all waters in artificially created bodies of water in which the public has acquired rights by prescription, custom, usage, dedication, or any other means. In determining whether the public has acquired rights in artificially created bodies of water, the following factors shall be considered:

- (1) the use of the body of water by the public,
- (2) the length of time the public has used the area,
- (3) the value of public resources in the body of water,
- (4) whether the public resources in the body of water are mobile to the extent that they can move into natural bodies of water,

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(5) whether the creation of the artificial body of water 365
 required permission from the state, and 366

(6) the value of the body of water to the public for 367
 navigation from one public area to another public area. 368

(b) Significance. The public has rights in these areas, 370
 including navigation and recreation. In addition, these areas 371
 support valuable commercial and sports fisheries, have aesthetic
 value, and are important resources for economic development. 372

(c) Management Objective. To protect public rights for 373
 navigation and recreation and to preserve and manage the public 374
 trust areas so as to safeguard and perpetuate their biological,
 economic and aesthetic value. 375

(d) Use Standards. Acceptable uses shall be those consistent 376
 with the management objectives in (c) of this Rule. In the 377
 absence of overriding public benefit, any use which significantly
 interferes with the public right of navigation or other public 378
 trust rights which the public may be found to have in these areas 379
 shall not be allowed. The development of navigational channels
 or drainage ditches, the use of bulkheads to prevent erosion, and 380
 the building of piers, wharfs, or marinas are examples of uses 381
 that may be acceptable within public trust areas, provided that
 such uses will not be detrimental to the public trust rights and 382
 the biological and physical functions of the estuary. Projects 383
 which would directly or indirectly block or impair existing 384
 navigation channels, increase shoreline erosion, deposit spoils
 below mean high tide, cause adverse water circulation patterns, 385
 violate water quality standards, or cause degradation of 386
 shellfish waters are generally considered incompatible with the
 management policies of public trust areas. In every instance, 387
 the particular location, use, and design characteristics shall be 388
 in accord with the general use standards for coastal wetlands,
 estuarine waters, and public trust areas. 389

History Note: Statutory Authority G.S. 113A-107(a); 392
 113A-107(b); 113A-113(b)(5); 393
 Eff. September 9, 1977. 394

.0200 USE STANDARDS 396

(a) General Use Standards 397

(1) Uses which are not water dependent will not be 398
 permitted in coastal wetlands, estuarine waters, and 400
 public trust waters. Restaurants, residences,
 apartments, motels, hotels, trailer parks, private 401
 roads, factories, and parking lots are examples of uses
 that are not water dependent. Uses that are water 402
 dependent may include: utility easements; docks; 403
 wharfs; boat ramps; dredging; bridges and bridge

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- approaches; revetments, bulkheads; culverts; groins; 404
 navigational aids; mooring pilings; navigational
 channels; simple access channels and drainage ditches. 405
- (2) Before being granted a permit by the CRC or local 406
 permitting authority, there shall be a finding that the 407
 applicant has complied with the following standards:
- (A) The location, design, and need for development, as 409
 well as the construction activities involved must 410
 be consistent with the stated management
 objective.
- (B) Before receiving approval for location of a use or 411
 development within these AECs, the permit-letting 412
 authority shall find that no suitable alternative
 site or location outside of the AEC exists for the 413
 use or development and, further, that the
 applicant has selected a combination of sites and 414
 design that will have a minimum adverse impact
 upon the productivity and biologic integrity of 415
 coastal marshland, shellfish beds, submerged grass
 beds, spawning and nursery areas, important 416
 nesting and wintering sites for waterfowl and
 wildlife, and important natural erosion barriers 417
 (cypress fringes, marshes, clay soils).
- (C) Development shall not violate water and air 418
 quality standards. 419
- (D) Development shall not cause major or irreversible 420
 damage to valuable documented archaeological or 421
 historic resources.
- (E) Development shall not measurably increase 422
 siltation. 423
- (F) Development shall not create stagnant water 424
 bodies. 425
- (G) Development shall be timed to have minimum adverse 426
 significant affect on life cycles of estuarine 427
 resources.
- (H) Development shall not impede navigation or create 428
 undue interference with access to, or use of, 429
 public trust or estuarine waters.
- (I) Development proposed in estuarine waters must also 430
 be consistent with applicable standards for the 431
 ocean hazard system AECs set forth in Section
 .0300 of this Subchapter.
- (3) When the proposed development is in conflict with the 433
 general or specific use standards set forth in this 434
 Rule, the CRC may approve the development if the
 applicant can demonstrate that the activity associated 435
 with the proposed project will have public benefits as

identified in the findings and goals of the Coastal Area Management Act, that the public benefits clearly outweigh the long range adverse effects of the project, that there is no reasonable and prudent alternate site available for the project, and that all reasonable means and measures to mitigate adverse impacts of the project have been incorporated into the project design and will be implemented at the applicant's expense. These measures taken to mitigate or minimize adverse impacts may include actions that will:

- (A) minimize or avoid adverse impacts by limiting the magnitude or degree of the action;
- (B) restore the affected environment; or
- (C) compensate for the adverse impacts by replacing or providing substitute resources.

(b) Specific Use Standards

- (1) Navigation Channels, Canals, and Boat Basins. Navigation channels, canals and boat basins must be aligned or located so as to avoid highly productive shellfish beds, beds of submergent vegetation, or regularly and irregularly flooded marshes.
- (2) Hydraulic Dredging
 - (A) The terminal end of the dredge pipeline should be positioned at a distance sufficient to preclude erosion of the containment dike and a maximum distance from spillways to allow adequate settlement of suspended solids.
 - (B) Dredge spoil must be either confined on high ground by adequate retaining structures or if the material is suitable, deposited on beaches for purposes of renourishment, with the exception of (G) of this Subsection (b) (2).
 - (C) Confinement of excavated materials shall be on high ground landward of regularly and irregularly flooded marshland and with adequate soil stabilization measures to prevent entry of sediments into the adjacent water bodies or marsh.
 - (D) Effluent from diked areas receiving disposal from hydraulic dredging operations must be contained by pipe, trough, or similar device to a point waterward of emergent vegetation or, where local conditions require, below mean low water.
 - (E) When possible, effluent from diked disposal areas shall be returned to the area being dredged.
 - (F) A water control structure must be installed at the intake end of the effluent pipe.

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- (G) Publicly funded projects will be considered by review agencies on a case by case basis with respect to dredging methods and spoil disposal. 473 474
- (H) Dredge spoil from closed shellfish waters and effluent from diked disposal areas used when dredging in closed shellfish waters shall be returned to the closed shellfish waters. 475 476 477
- (3) Drainage Ditches 478
 - (A) Drainage ditches located through any marshland shall not exceed six feet wide by four feet deep (from ground surface) unless the applicant can show that larger ditches are necessary for adequate drainage. 480 481 482
 - (B) Spoil derived from the construction or maintenance of drainage ditches through regularly flooded marsh must be placed landward of these marsh areas in a manner that will insure that entry of sediment into the water or marsh will not occur. Spoil derived from the construction or maintenance of drainage ditches through irregularly flooded marshes shall be placed on non-wetlands wherever feasible. Non-wetland areas include relic disposal sites. 483 484 485 486 487
 - (C) Excavation of new ditches through high ground shall take place landward of a temporary earthen plug or other methods to minimize siltation to adjacent water bodies. 488 489
 - (D) Drainage ditches shall not have a significant adverse effect on officially designated primary nursery areas, productive shellfish beds, submerged grass beds, or other documented important estuarine habitat. Particular attention should be placed on the effects of freshwater inflows, sediment, and nutrient introduction. Settling basins, water gates, retention structures are examples of design alternatives that may be used to minimize sediment introduction. 490 491 492 493 494 495
- (4) Nonagricultural Drainage 496
 - (A) Drainage ditches must be designed so that restrictions in the volume or diversions of flow are minimized to both surface and ground water. 498 499
 - (B) Drainage ditches shall provide for the passage of migratory organisms by allowing free passage of water of sufficient depth. 500 501
 - (C) Drainage ditches shall not create stagnant water pools or significant changes in the velocity of flow. 502 503

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- (D) Drainage ditches shall not divert or restrict water flow to important wetlands or marine habitats. 504 505
- (5) Marinas 506
- (A) Marinas shall be developed on non-wetland sites or in deep waters (areas not requiring dredging) and shall not disturb valuable shallow water and wetland habitat, except for dredging necessary for access to high ground sites. 508 509 510
- (B) Privately-owned marinas which involve use of public bottoms and waters shall not be permitted unless adequate compensation is made to the public by purchase of an easement from the state. These easements should be for a limited period. This requirement shall be met by showing compliance with state laws and regulations regarding easements over public waters. 511 512 513 514
- (C) Marinas shall: (i) be designed to minimize use of public waters by encouraging an appropriate mix of dry storage areas, public launching facilities, and berthing spaces; (ii) provide adequate pump-out stations for wastewater disposal from boats; and (iii) demonstrate the implementation of all necessary means and measures to minimize the impact of pollutants likely to be emitted by the operation of the marina and attendant vessels upon the natural systems. 515 516 517 518 519 520
- (D) Marinas shall be designed to minimize adverse effects on navigation and public use of waters while allowing the applicant adequate access to deep waters. 521 522
- (6) Docks and Piers 523
- (A) Docks and piers shall not significantly interfere with water flows. 525 526
- (B) To preclude the adverse effects of shading marsh vegetation, structures which are built over vegetated marsh shall not exceed six feet in width, except that "T"s or platforms at the waterward end are not restricted to these dimensions but cannot have a total area of more than 500 square feet. 527 528 529 530
- (C) The structure must not present a navigational hazard and must not, except where necessary, extend any closer than 80 feet from the edge of a federally maintained channel. Piers shall be designed to minimize adverse effects on navigation 531 532 533

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- and public use of waters, while allowing the applicant adequate access to deep waters.
- (7) Bulkheads and Shore Stabilization Measures
 - (A) Bulkhead alignment, for the purpose of shoreline stabilization, must approximate mean high water or normal water level.
 - (B) Bulkheads shall be constructed landward of significant marshland or marshgrass fringes.
 - (C) Bulkhead fill material shall be obtained from an approved upland source, or if the bulkhead is a part of a permitted project involving excavation from a non-upland source, the material so obtained may be contained behind the bulkhead.
 - (D) Bulkheads or other structures below approximate mean high water or normal water level for the purpose of reclaiming land lost to erosion shall be permitted only where there is an identifiable erosion problem. Where such a problem is shown to exist, only the area shown to have eroded in the previous year from time of application may be bulkheaded and filled.
 - (E) Where possible, sloping rip-rap, gabions, or vegetation may be used rather than vertical seawalls.

History Note: Statutory Authority G.S. 113A-107(a);
 113A-107(b); 113A-113(b);
 Eff. September 9, 1977;
 Amended Eff. August 6, 1979; June 1, 1979.

.0209 ESTUARINE SHORELINES

(a) Rationale. As an AEC, estuarine shorelines, although characterized as dry land, are considered a component of the estuarine system because of the close association with the adjacent estuarine waters. This Section defines estuarine shorelines, describes the significance, and articulates standards for development.

(b) Description. Estuarine shorelines are those non-ocean shorelines which are especially vulnerable to erosion, flooding, or other adverse effects of wind and water and are intimately connected to the estuary. This area extends from the mean high water level or normal water level along the estuaries, sounds, bays, and brackish waters as set forth in an agreement adopted by the Wildlife Resources Commission and the Department of Natural Resources and Community Development [described in Regulation .0206(a) of this Section] for a distance of 75 feet landward.

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(c) Significance. Development within estuarine shorelines 571 influences the quality of estuarine life and is subject to the 572 damaging processes of shore front erosion and flooding.

(d) Management Objective. To ensure shoreline development is 573 compatible with both the dynamic nature of estuarine shorelines 574 and the values of the estuarine system.

(e) Use Standards 575

(1) All development projects, proposals, and designs shall 577 substantially preserve and not weaken or eliminate 578 natural barriers to erosion, including, but not limited 579 to, peat marshland, resistant clay shorelines, cypress-gum protective fringe areas adjacent to vulnerable 580 shorelines.

(2) All development projects, proposals, and designs shall 581 limit the construction of impervious surfaces and areas 582 not allowing natural drainage to only so much as is necessary to adequately service the major purpose or 583 use for which the lot is to be developed. Impervious 584 surfaces shall not exceed 30 percent of the AEC area of the lot, unless the applicant can show that such a 585 limitation will allow no practical use to be made of the lot.

(3) All development projects, proposals, and designs shall 586 comply with the following mandatory standards of the 587 North Carolina Sedimentation Pollution Control Act of 1973:

(A) All development projects, proposals, and designs 589 shall provide for a buffer zone along the margin 590 of the estuarine water which is sufficient to confine visible siltation within 25 percent of the 591 buffer zone nearest the land disturbing development.

(B) No development project proposal or design shall 592 permit an angle for graded slopes or fill which is 593 greater than an angle which can be retained by vegetative cover or other adequate erosion-control 594 devices or structures.

(C) All development projects, proposals, and designs 595 which involve uncovering more than one acre of 596 land shall plant a ground cover sufficient to restrain erosion within 30 working days of 597 completion of the grading; provided that this shall not apply to clearing land for the purpose 598 of forming a reservoir later to be inundated.

(4) Development shall not have a significant adverse impact 600 on estaurine resources. 601

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- (5) Development shall not significantly interfere with existing public rights of access to, or use of, navigable waters or public resources.
- (6) No major public facility shall be permitted if such facility is likely to require extraordinary public expenditures for maintenance and continued use, unless it can be shown that the public purpose served by the facility outweighs the required public expenditures for construction, maintenance, and continued use. For the purpose of this standard, "public facility" shall mean a project which is paid for in any part by public funds.
- (7) In those instances where ground absorption sewage disposal systems may legally be placed less than 100 feet from the mean or normal high water mark of any waters classified as S.A., such systems shall be permitted only if:
 - (A) The nitrification lines are separated from the seasonal high ground water by a minimum of 30 inches of suitable or provisionally suitable soil; and
 - (B) It meets all the other applicable laws and rules for ground absorption sewage disposal systems adopted by the North Carolina environmental management; and
 - (C) This Rule shall apply to ground absorption sewage disposal systems installed after March 1, 1981.
- (8) Development shall not cause major or irreversible damage to valuable, documented historic architectural or archaeological resources.

History Note: Statutory Authority G.S. 113A-107(b); 624
 113A-108(a); 113A-113(b); 625
 Eff. September 9, 1977; 626
 Amended Eff. June 1, 1980; October 23, 1979; 627
 August 29, 1979; June 1, 1979. 628

SURVEY OF CAMDEN COUNTY

PLEASE COMPLETE & RETURN TO JACK LEARY BY THANKSGIVING

A. Personal Characteristics

1. Are you presently a resident of Camden County? Yes _____ No _____
2. In which township do you live? (Circle One)
A. South Mills B. Courthouse C. Shiloh
3. Educational Attainment (Circle One): A. Grammar School -
B. Junior High - C. High School - D. College -
4. Occupation: _____
5. Which age group are you in? (Circle One)
A. 15-18 - B. 19-24 - C. 25-35 - D. 36-45 -
E. 46-55 - F. 56-64 - G. 65-over -
6. Sex (Check): Male _____ Female _____
7. Race: A. Caucasian B. Black C. Other
8. Give total number of years you have lived in county: _____
9. Family Size: 1 person; 2 to 4 persons; 5 or more persons.
10. Which of the following applies to you (Circle):
A. own home B. rent home C. own other property in county
11. Marital status (Circle One):
A. Single B. Married C. Widow or Widower D. Divorced
12. Are you presently (Circle One): A. Employed - B. Unemployed -
C. Retired - D. Full-time homemaker - E. Full-time Student -
13. Where is most or all of your income derived (Circle):
A. Camden County - B. Tidewater Virginia - C. Adjacent
Counties (specify) _____ D. Other - _____
14. Have you ever attended a public hearing or meeting of the County
Board of Commissioners or County Planning Board. Yes _____ No _____
15. How do you obtain most of your information about activities in the
county? (Circle): A. Through newspaper - B. Through radio -
C. Through TV - D. By word of mouth - E. Other -

continued on page 2

B. DEVELOPMENT ISSUES

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1. Please indicate the seriousness of each of the following issues for your community using these responses:

"No" means Not a problem in my community
 "Slight" means A slight problem in my community
 "Moderate" means A moderate problem in my community
 "Serious" means A very serious problem in my community

ISSUES	Extent of problem in your community (check your response)			
	No	Slight	Moderate	Serious
A. Swamp Drainage				
B. Water quality (iron, - acid, need for softners)				
C. Garbage collection and disposal.				
D. Development of second or recreational homes..				
E. Damage to enviromen- tally, sensitive areas.				
F. Adequency of commercial Development.				
G. Mobile Home development.				
H. Septic Tank failure.				
I. Availability of adequate housing.				
J. Amount of Industrial development.				
K. Availibility of Health Services.				
L. Coverision of forested land to agricultural uses.				

2. What do you like most about Camden County? _____

3. What do you think is the most significant problem in Camden County?

continued on page 3

4. In your opinion is there a problem of insufficient or inadequate shopping facilities, and if so what kind would you like to see here?

Great _____ Moderate _____ Slight _____ None _____
 Don't Know _____
 What Kind? _____

C. DIRECTION FOR THE FUTURE.

1. Are you pleased with the direction Camden County development is taking?

Yes _____ No _____

If so, please use this space to write the reasons you are pleased.

If not, please use the space to indicate the changes you would like to see and your reasons for them.

2. What is your attitude towards the following statements:

	Agree Strongly	Agree	Neutral	Disag. Strongly	Disagree Strongly
a. Environmental protection is as important as Economic development.					
b. More industry is needed to supplement existing agricultural base.					
c. The area needs more agricultural related industries.					
d. Natural resources and wildlife should be protected.					
e. Future growth should be concentrated in existing communities (Example: South Mills, Shiloh)..					

continued on page 4

	Agree Strongly	Agree	Neutral	Disag.	Disagree Strongly
f. Historic assets in the County should be preserved.					
g. The area's agricultural lands are very important and must be protected or maintained from inappropriate development, (residential, commercial or industrial).					
h. Land use planning is important for promoting appropriate types of development.					

3. Would you like to see more tourists come to Camden County?
Yes _____ No _____
4. What, if any, additional recreational facilities would you like to see in this area?

5. What, if any, type of commercial establishments do you think should be developed in this area?

6. In your opinion which of the following should the county adopt as its policy for county population growth during the next 10 years.
(Circle One)
- A. Remain the same size
 - B. Small increase
 - C. Substantial increase
 - D. Reduce Population
7. Specifically, what are any other issues or concerns you have about the future of Camden County?

If you have questions concerning this questionnaire or the county's Land Use Planning activities, please call Jack Leary, Camden Planning Office, 335-4077, or Rex H. Todd, Planning & Design Associates, P.A., 781-9004.

Thank you for your help. Please return this questionnaire in the enclosed envelope by Thanksgiving.

RET:mcb

11/12/80

CHECKLIST FOR LAND USE PLANS

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I. Data Collection and Analysis (Page 57)

	DISCUSSION Page	ADEQUATE? Yes No	
Establishment of information base, including			
1. manner in which data was assembled	58	<input type="checkbox"/>	<input type="checkbox"/>
2. statement of the major conclusion	58	<input type="checkbox"/>	<input type="checkbox"/>
Present conditions and economy, including			
1. present population and economy analysis	59-66	<input type="checkbox"/>	<input type="checkbox"/>
2. impact of seasonal population	60	<input type="checkbox"/>	<input type="checkbox"/>
Existing land use analysis (page 67 - 93)			
1. significant land use compatibility problems	89-91	<input type="checkbox"/>	<input type="checkbox"/>
2. problems and implications from unplanned development	92	<input type="checkbox"/>	<input type="checkbox"/>
3. identification of areas experiencing or likely to experience changes in predominant land use	92	<input type="checkbox"/>	<input type="checkbox"/>
4. Areas of environmental concern	93	<input type="checkbox"/>	<input type="checkbox"/>
5. map of existing land use	68-79	<input type="checkbox"/>	<input type="checkbox"/>
Current plans, policies and regulations, including (94 - 105)			
1. listing and summary of significant existing local plans and policies	94-98	<input type="checkbox"/>	<input type="checkbox"/>
2. listing and description of the means for enforcement of all local existing land use regulations	99-101	<input type="checkbox"/>	<input type="checkbox"/>
3. listing of all relevant federal and state regulations (DNRCN to provide)	101-105	<input type="checkbox"/>	<input type="checkbox"/>
Constraints: Land suitability (106-115)			
1. physical limitations to development			
a. hazard areas (man-made/natural)	106	<input type="checkbox"/>	<input type="checkbox"/>
b. soil limitation areas (shallow, poorly drained, septic tank limitations)	106	<input type="checkbox"/>	<input type="checkbox"/>
c. water supply sources	110	<input type="checkbox"/>	<input type="checkbox"/>
d. excessive slope areas (over 12%)	111	<input type="checkbox"/>	<input type="checkbox"/>
2. fragile areas (min. req. 15 NCAC 7H)	111	<input type="checkbox"/>	<input type="checkbox"/>
3. areas with resource potential	113	<input type="checkbox"/>	<input type="checkbox"/>
Constraints: Capacity of community facilities (Discuss)			
1. existing water and sewer service areas	116-119	<input type="checkbox"/>	<input type="checkbox"/>
2. design capacity of the existing water and sewage treatment plants, schools, and primary roads	116-119	<input type="checkbox"/>	<input type="checkbox"/>
3. percentage at which existing facilities are utilized	116-119	<input type="checkbox"/>	<input type="checkbox"/>
Estimated demand			
1. population estimate for the upcoming ten years	120	<input type="checkbox"/>	<input type="checkbox"/>
2. future land need discussion	121	<input type="checkbox"/>	<input type="checkbox"/>
3. community facilities demand (types of facilities and densities at which land is to be developed)	123	<input type="checkbox"/>	<input type="checkbox"/>

II. Policy Statements	DISCUSSION OF ALTERNATIVES	POLICY STATEMENT	IMPLEMENTATION STRATEGIES	ADEQUATE?	
	Yes	No			
	<u>Page</u>	<u>Page</u>	<u>Page</u>		
Resource Protection Policies (page 7 - 27)					
1. policies on types of uses appropriate within the locality's AECs	<u>7-12</u>	<u>12</u>	<u>12</u>	<input type="checkbox"/>	<input type="checkbox"/>
2. constraints to development	<u>14-17</u>	<u>14-17</u>	<u>14-17</u>	<input type="checkbox"/>	<input type="checkbox"/>
3. specific local resource development issues relative to 15 NCAC 7H	<u>18-21</u>	<u>18-21</u>	<u>18-21</u>	<input type="checkbox"/>	<input type="checkbox"/>
4. other hazardous or fragile land areas	<u>22-26</u>	<u>22-26</u>	<u>22-26</u>	<input type="checkbox"/>	<input type="checkbox"/>
5. hurricane and flood evacuation needs and plans	<u>27</u>	<u>27</u>	<u>27</u>	<input type="checkbox"/>	<input type="checkbox"/>
Resource Production and Management Policies (page 28)					
1. discussion of importance of agriculture, forestry, mining, fisheries and recreational resources	<u>29-35</u>	<u>29-35</u>	<u>29-35</u>	<input type="checkbox"/>	<input type="checkbox"/>
a. identification of most productive areas	<u>29-35</u>	<u>29-35</u>	<u>29-35</u>	<input type="checkbox"/>	<input type="checkbox"/>
b. discussion of values of protecting these areas	<u>29-35</u>	<u>29-35</u>	<u>29-35</u>	<input type="checkbox"/>	<input type="checkbox"/>
2. policy statements on:					
a. productive agricultural lands	<u>29</u>	<u>29</u>	<u>29-30</u>	<input type="checkbox"/>	<input type="checkbox"/>
b. commercial forest lands	<u>31</u>	<u>31</u>	<u>31-32</u>	<input type="checkbox"/>	<input type="checkbox"/>
c. existing and potential mineral production areas	<u>33</u>	<u>33</u>	<u>33</u>	<input type="checkbox"/>	<input type="checkbox"/>
d. commercial and recreational fisheries	<u>35</u>	<u>35</u>	<u>35</u>	<input type="checkbox"/>	<input type="checkbox"/>
e. off-road vehicles	<u>35</u>	<u>35</u>	<u>35</u>	<input type="checkbox"/>	<input type="checkbox"/>
f. parks and outdoor recreation sites	<u>34</u>	<u>34</u>	<u>34</u>	<input type="checkbox"/>	<input type="checkbox"/>
Economic and Community Development Policies					
1. discussion of types of development which are to be encouraged	<u>36</u>	<u>37</u>	<u>37-51</u>	<input type="checkbox"/>	<input type="checkbox"/>
a. discussion of redevelopment of older areas/creation of new subdivisions, etc.	<u>44</u>	<u>44</u>	<u>44</u>	<input type="checkbox"/>	<input type="checkbox"/>
2. policies on types and locations of industries desired	<u>38</u>	<u>38</u>	<u>38-39</u>	<input type="checkbox"/>	<input type="checkbox"/>

REQUIREMENTS	DISCUSSION OF ALTERNATIVES	POLICY STATEMENT	IMPLEMENTATION STRATEGIES	ADEQUATE?	
	Page	Page	Page	Yes	No
3. policies on local commitment to providing services to development	40	40	40	<input type="checkbox"/>	<input type="checkbox"/>
4. policies on types of urban growth patterns desired	41- 43	41- 43	41- 43	<input type="checkbox"/>	<input type="checkbox"/>
5. policies on redevelopment of developable areas	44	44	44	<input type="checkbox"/>	<input type="checkbox"/>
6. policies on commitment to federal and state programs in the area	45	45	45	<input type="checkbox"/>	<input type="checkbox"/>
7. policies on assistance to channel maintenance and beach nourishment	45	45	45	<input type="checkbox"/>	<input type="checkbox"/>
8. policies on energy facility siting and development	46	46	46	<input type="checkbox"/>	<input type="checkbox"/>
9. policies on tourism or beach and waterfront access	46	46	46	<input type="checkbox"/>	<input type="checkbox"/>
Continuing Public Participation Policies					
1. discussion of means by which public participation in planning matters was encouraged in plan update process	47	47	48- 49	<input type="checkbox"/>	<input type="checkbox"/>
2. description of the means to be used for public education on planning issues	47	47	48- 49	<input type="checkbox"/>	<input type="checkbox"/>
3. description of the means to be used for continuing public participation	47	47	48- 49	<input type="checkbox"/>	<input type="checkbox"/>
Other Specific Local Issues for Policy Discussion (from Attachment B)					
1. Mobile Homes	50	50	50	<input type="checkbox"/>	<input type="checkbox"/>
2. Second Homes/Waterfront Development	51	51	51	<input type="checkbox"/>	<input type="checkbox"/>
3. _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

III. Land Classification (page 53)

Land Classification Map Showing the (page 54)
Following:

1. Developed land
2. Transition land
3. Community land
4. Rural land
5. Conservation land
6. additional breakdown of standard
5 classes. (optional)

DISCUSSION

Page

ADEQUATE?

Yes No

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IV. Additional Requirements

1. Preliminary draft must contain a
submittal letter.
2. Final draft must contain an approval
letter and a submittal level.
3. All municipal plans must have a letter from
their county designating the municipality
as a CAMA planning jurisdiction.

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TBD

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N/A

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SYNOPSIS OF THE LAND USE PLAN OF CAMDEN COUNTY: 1980-1990

I. Why Plan for the County of Camden?

Located in the northeast corner of North Carolina, Camden County has remained a slow-growing rural county over the years. Today, it features three principal unincorporated communities, several smaller ones, and some newer subdivisions which provide diversity to the quiet and agrarian nature of the County. Additional reasons to plan for the future stem from the County's population, its environmentally sensitive areas, and economic development intentions.

First, Camden County is the home of 5,829 persons, 67.5% of whom are white and 32.5% non-white. Since 1970, Camden grew only 6.9% (376 persons), compared to the state's rate of 15.5%. Projections show that the County can expect a similar growth rate between 1980 and 1990. The fact that the County will grow 14% faster than the state during that period distorts the fact that only 571 additional persons will reside in Camden County in 1990 than today.

Second, Camden County has a large amount of its official territory covered by coastal wetlands, public waters, estuarine waters and shorelines that are designated as Areas of Environmental Concern under the Coastal Area Management Act. Additionally, vast areas of wooded swamps serve valuable nutrient collection and wild-life habitat functions. Additionally, the Dismal Swamp State Park covers thousands of acres, where the natural environment is particularly protected. Demand for recreational and second homes continues to place considerable pressure for development in environmentally sensitive areas. In addition to resources that need protection, Camden County has vast acres of good farmland and forested areas suitable for commercial production. A large peat concentration along the northeastern boundary has potential for careful resource management.

Third, economic and community development issues persist in the County. Water quality is one such issue. Softeners and other purifiers are applied to individual wells, except in the one-third of the County served by the non-profit South Mills Water Association. Therefore, expressly choosing a slow growth policy, the County is justifiably interested in being selective among federal and state programs which stimulate development. It is equally cautious about courting industries that extract minerals and drain swamps which deplete the water table in the northern part of the County and about undertaking any other actions that could stimulate development. These times of high inflation, increasing costs in gasoline, and rising unemployment may reverse commuter trends, however, and cause pressures for concentrated commercial and residential development patterns in the County.

Thus, the County's rural nature, population, environmentally sensitive areas, and community and economic development intentions provide ample incentive for the County to prepare to face the uncertainty of the 1980's. It is to this end that the County has prepared this update of its Land Use Plan.

II. Background.

In 1976, the County Board of Commissioners and its Planning Board and Growth Advisory Board prepared its CAMA Land Use Plan for 1975-1985. That Plan described existing conditions and patterns of land use, identified constraints on land development, estimated future demands, and provided a plan for development based upon a Land Classification systems. Particular attention was given to environmental factors and public participation in the plan-making process.

In 1980, the Board of Commissioners received another grant under the Coastal Area Mangement Act for preparation of the Land Use Plan for Camden County: 1980-1990. This synopsis describes the purposes of this update, its land classification scheme, the plan's information base, and briefly outlines the responsibility for using the plan -- for using it to guide (not control) decisions for the future.

III. Purposes of the Land Use Plan.

The plan, then is the pivotal statement of policy for use by local, state and federal officials in decisions regarding Camden County's development over the next 10 years. It is an important element in the state's plan for rational and coordinated management of coastal resources.

The Coastal Area Management Act upon which this plan is based, works to protect areas of statewide concern within the coastal area. In Camden County, Public Trust Water, Estuarine Water, Estuarine Shoreline, and Coastal wetlands (marshes) have been designated for such protection. The Act also, through its guidelines for land use planning (15 NCAC 7B), sets forth important principles of land use planning which have been emphasized in the Land Use Plan of Camden County: 1980-1990:

1. This plan has environmental protection as a priority in its own right, while at the same time, advocates appropriate economic and community development.
2. This plan is based upon real citizen participation in the planning process, through the Board of County Commissioners, the Development Advisory Committee, the citizen's survey and public meetings.
3. This plan has a strong action orientation. Policies are stated as desired situations toward which the Board of Commissioners is willing to work.
4. This plan is a sound basis for continuation of earlier work in Camden County to improve the community for those who live and visit there.
5. This plan is designed for continuous improvement as new information becomes available. It is to be updated at least once every five years, and more frequently, if required by the Board of Commissioners.

These purposes and principles are represented in the heart of the Land Use Plan of Camden County, Section II, which sets forth explicit policy statements for the future. The goals of each major policy section are briefly listed below, leaving the reader to gain detail, alternatives considered, and implementation strategies from the Land Use Plan itself. The plan may be obtained by contacting Mr. Jack Leary, Clerk, at 335-4077.

Resource Protection Goals.

Safeguard and perpetuate the biological, social, economic and aesthetic value of the County's Areas of Environmental Concern (coastal wetlands, estuarine waters, estuarine shorelines, and public trust waters) in accordance with CAMA regulations.

Protect areas subject to excessive shoreline erosion through encouraging proper placement, density, and type of development in shoreline areas.

Protect areas prone to severe flooding through undertaking a detailed flood hazard study, revising the zoning ordinance, and considering establishment of a floodplain ordinance.

Direct development with proper consideration of soils, through working with the District Health Department regarding septic limitations and with the Albermarle Soil and Water Conservation District for preliminary plat review.

Appropriately minimize the drainage and clearing of wooded swamps and their conversion to other uses through classifying wooded swamps as "local resource protection districts" in the zoning ordinance, developing permits for drainage requiring setback of development from wooded swamps, and requiring adequate erosion control practice near them.

Protect remnant species and their habitats through establishing local "resource protection districts" for such identified areas and allowing no public works projects to be constructed within them, other than light recreational facilities.

Guide development so that it protects historic and potential historic properties and perpetuates the county's cultural heritage through enforcing all applicable laws regarding archeological and historic sites, promoting federal investment benefits to private owners of historic properties, considering a local tax incentive, and considering a countywide survey of historic sites and properties.

Minimize the adverse impact of man-made hazards upon humans and adjacent development through a volunteer improvement/demolition program, use of state building code, establishment of buffer zones near hazards, and requiring clear warnings at such sites.

Increase readiness for safe evacuation from hurricane or flood disaster through increasing awareness and conducting a practice exercise under the County's hurricane evacuation plan.

Resource Production Goals.

Achieve maximum sustained yields from agriculturally productive areas through improved local agricultural management techniques and limiting conversion of prime agricultural land to other uses.

Achieve maximum sustained yields from forest resources through education of forest owners and establishing financial rewards and other incentives for good management practices, limiting the conversion of wooded land to other less productive uses, and establishing markets for local forest products.

Develop geological-mineral and energy resources (sand, gravel and peat) in a manner consistent with other development goals, particularly related to AEC's and agricultural/forestation by developing local standards and instituting a county severance tax, if possible.

Increase productivity of recreational resources, including touring through identifying areas for development of tourist facilities, supporting resurrection of the State Dismal Swamp Master Plan, supporting development of public or private access points to public areas, and establishing easements.

Economic and Community Development Goals.

Achieve level, types and patterns of economic and community development which are consistent with the historic character of the County, raise local employment levels, and otherwise contribute to the economic base, so as to implement the Land Classification Map.

Encourage location of light industry which meets established performance standards, near existing communities, and which does not use prime agricultural land.

Provide significant forms of local commitment toward providing services to development including the South Mills Water Association, preparing a preliminary capital improvements budget, identifying particular state and federal programs, and working to establish a "partnership" with private land owners toward achievement of development goals.

Promote development in the pattern stipulated by the Land Classification Map, in accordance with the zoning ordinance, and near existing development. Details for patterns of residential, commercial, cultural-institutional-recreational and agricultural-forestry development patterns may be found in the Plan, pages 41-43.

Promote redevelopment of existing communities, primarily those designated as "transition" and "community" on the Land Classification Map, through participating in a regional development effort, obtaining technical assistance in working with local businesses, undertaking selective measures to improve the housing stock, designating local "revitalization areas" for priority attention, and working to have local legislators improve the access to South Mills from Highway 17.

Selectively support state and federal programs related to Camden County through engaging in a grantsmanship program.

Achieve appropriate levels of energy facilities through revising the zoning ordinance to require a special use permit to construct such facilities, and undertake a feasibility study for a local gasohol production co-op in the county.

Continuing Citizen Participation Policies.

Provide opportunities for participation in the land use planning process by residents individually and through representative groups.

Educate citizens about issues facing the area regarding protection, production, and development policies through presentations to civic groups, school classes, newspaper releases, and workshops.

Other Policies.

Accept the mobile home as a reasonable form of standard housing and make its use in the County as appropriate as possible through providing for mobile home development in designated areas and revising the zoning and subdivision regulation provision for mobile homes so as to better implement plan recommendations.

Direct development of second home/waterfront development appropriately through revising the zoning ordinance to promote concentration rather than sprawl of such development, paying close attention to CAMA regulations regarding estuarine shorelines, and developing districts and construction criteria for such development.

In the Camden County Land Use Plan, each of these policy directions are prefaced with a narrative which integrates the best available data; results from the citizen survey and field examinations, Advisory Committee worksessions, and interviews with local, regional, and state officials; examination of current plans; and consultant assessment. Under each major section, alternative policies which the Planning Board considered are presented, with the chosen policy and often a more specific statement of intent (objective), and chosen implementation strategies.

IV. Land Classification.

The Land Classification Map for Camden County jurisdiction designated land within the five standard categories of: developed; transition; community; rural; and conservation, and presents special sub-categories for the rural category (Map on page 54).

As shown on the Land Classification Map, there are no areas designated as "developed" since the County has no incorporated towns.

The purpose of the transition class is to provide for further intensive urban development within the next ten years on lands which are most suitable and that may be scheduled for provision of necessary public utilities and services. As shown on the Land Classification Map, two areas have been designated as "transition", South Mills (west) and Camden community (west). This means that these two areas are especially targeted for public investment should the County undertake such planning or conduct grantsmanship for such purposes.

The purpose of designating areas as "community" is to provide for clustered land development to help meet housing, shopping, employment and public service needs within the rural areas of the planning district. The areas of Camden community (east) - Belcross, Shiloh, and Old Trap are designated as "Community". As such, they represent the essence of the County's foremost development pattern policy, that of blustering development where it has traditionally been.

The purpose of the "rural" category as defined by CAMA, is to provide for agriculture and forest management, mineral extraction and other low intensity uses. In the Camden Land Use Plan these purposes are supported by the sub-category of "rural production". A new sub-category of "rural-residential" was created by the Board of Commissioners to reflect that the areas of Camden Point Shores, Whitehall Shores, Taylor's Beach and Texaco Beach should develop significantly slower and not in a mixed land use pattern (like that supported in the "transition" category above). This modification of the standard categories helps the county address one of its special issues, second homes/waterfront development, as emphasized by CAMA.

Finally, the resource protection policies related to the County's salt marshes, estuarine waters, estuarine shorelines, and public trust waters rendered them to be designated as "conservation", stipulating that no public funds, either direct or indirect, are to be used to encourage development of these areas. All surface waters are designated as conservation.

V. Information Base.

The remainder of the Camden County Land Use Plan provides the information base upon which the aforementioned policy statements and Land Classification Map were developed by the Advisory Committee and Board of Commissioners. Data and analyses are presented regarding the population and economy; existing land use, current plans, policies, and regulations; constraints to development imposed by the land and by community facilities, and estimates of future demand. The Appendix includes material related to the construction of that information base, notably excerpts from the CAMA regulations and the citizen survey questionnaire.

VI. The Land Use Plan of Camden County and You.

The Camden County Land Use Plan: 1980-1990, then, provides a sound basis upon which future development, production, and preservation decisions can be made within the context of the total community. It provides a visual pattern of desired development, and contains a comprehensive array of action instruments for carrying out its policies. Beyond that, the Plan is dependent mostly upon the elected officials, as represented through the Board of Commissioners and ultimately upon the citizens of the planning area to work towards its fulfillment. Additionally, it is the responsibility of private developers and state and federal governmental agencies to consult this plan for Camden County as a statement by local citizens of the manner in which they want their community to grow and prosper.

